



Newsletter

No. 46, Spring 2023



British Myriapod and Isopod Group – *discovering millipedes, centipedes, woodlice and other isopods in Britain and Ireland*

The British Myriapod and Isopod Group (BMIG) aims to improve awareness and knowledge of centipedes, millipedes and other Myriapoda, woodlice, waterlice and intertidal Isopoda and related species in Britain and Ireland.

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Cover photo: *Idotea linearis*, netted in shallow water over sand on a low spring tide at Auldhame, East Lothian, August 2021 (photo © Warren Maguire).



BMIG residential field weekend and AGM, 13th to 16th April 2023

BMIG's annual gathering in 2023 will be based near Bridgwater in Somerset. We have not visited this county for over 30 years. Bridgwater is ideally placed for easy access to the Somerset coast and to areas of varied geology and topography - Mendip Hills, Somerset Levels, Quantock Hills and Blackdown Hills AONB. We have block-booked accommodation at the Cannington Campus of Bridgwater & Taunton College. The campus is about five miles west of Bridgwater.

We have permission to survey a variety of sites, with consent being sought for others, which will provide us with a wide selection to choose from. Details will be circulated to attendees in advance.

The AGM will be held during the Field Meeting on Friday 14th April. All BMIG members are welcome to attend. An agenda will be produced closer to the meeting. If there any particular issues you would like to raise or think should be discussed at the AGM please make the Chair or Secretary aware of these in advance.

If you have not yet submitted your biological records from last year's field meeting in Shropshire to the relevant national recording schemes or Kevin Clements, would you please do so as soon as possible. They need to be collated and copied to the site owners as agreed and a report of the Field Meeting prepared and published.

The election of officers

Officers are elected on three year cycle, unless circumstances require otherwise. The positions due for election this year, and the current holders of those positions, are listed below:

Chair	Duncan Sivell
Secretary	Helen Read

Newsletter editor	Warren Maguire
Social Media Manager	Warren Maguire
BENHS Representative	Paul Harding
Intertidal Isopod Recorder	Warren Maguire

A further three officer posts remain vacant and we would welcome volunteers to fill these positions.

Vice Chair

Projects Officer

Librarian and Collections Manager

Nominations can be made prior to the AGM or taken from the floor during the meeting.

Tanyptera Trust woodlice ID workshop

Thursday 21st September 2023, 10:30 – 16:00

RSPB Leighton Moss, Carnforth

£7.50

<https://www.northwestinvertebrates.org.uk/event/woodlice-2/>

This great value workshop is provided by North West Invertebrates and the Tanyptera Trust. Led by Paul Richards, it will cover general life histories and ecology of woodlice and then focus on identification of the common and more distinctive species. The workshop will include richly illustrated indoor presentations, observing specimens under microscopes and opportunities to try field collection and identification skills. It will be ideal for a beginner or anyone wanting to take their interest in woodlice a little further.

ISTIB 2023

The 12th ISTIB (International Symposium on Terrestrial Isopod Biology) will take July 9-13, 2023 in Olomouc, Czech Republic.

Organizers: I. H. Tuf and K. Tajovsky

Advance notice of Natural History Museum collections move

The Natural History Museum was built in South Kensington almost 150 years ago because the British Museum had run out of space and a decision was made to hive off the natural history collections to a new site. Some readers may remember the NHM being called the British Museum of Natural History in homage to its parent institution in Bloomsbury. Now the NHM itself has run out of space and is building a new site to ease the burden of looking after 82 million specimens.

The NHM's new collections and research facility will be in the Thames Valley Science Park just outside Reading. This project is called NHM Unlocked and is already three years in the planning. The actual building work will begin next year in 2024. This new facility will house 28 million specimens and will have associated labs and equipment to support their research. The museum will start transferring collections to the new site in 2027 and the new facility will be open to visitors by 2030. The insect collections will stay in South Kensington but most of the non-insect invertebrates will move to Reading.

This new development has two implications for Myriapods and Isopods; the NHM collection will be inaccessible while this move takes place, but when the new facility does open the NHM specimens will be in close proximity to BMIG's own reference collection at Dinton Pastures, just a 15 minute drive away. The NHM's Myriapods and Isopods are still available for study at South Kensington until 2027. When the new facility opens the BMIG and NHM

collections will be conveniently close enough that both could be visited and studied on the same day.

Duncan Sivell

BMIG & BENHS

As many of you will know BMIG is affiliated with the British Entomological and Natural History Society (BENHS). In fact our reference collection of isopod and myriapod specimens is kept at the BENHS headquarters, the Pelham-Clinton Building, at Dinton Pastures Country Park near Reading. Our BMIG library is also kept at Dinton Pastures alongside the BENHS library. Another significant benefit of our affiliation with BENHS is the public liability insurance cover it provides for BMIG field meetings.

The BENHS are holding a members' day at the Oxford Museum of Natural History on 25th March and are using this event to showcase the work of affiliated organisations. I have been asked to give a presentation on BMIG activities, and I am looking forward to promoting the work of our Group. I have always felt that BMIG punches far above its weight through the work of its recording schemes, its outreach and training activities and its social media presence. Fitting all this into a half-hour talk will be a challenge!

More information about the members' day can be found on the BENHS website. BMIG members who would like to attend this meeting can book themselves a place using the following link:

<https://www.eventbrite.co.uk/e/the-british-entomological-and-natural-history-society-members-day-tickets-558286127837>

Duncan Sivell

***Animals under Logs and Stones*, 2nd edition**

The second edition of *Animals Under Logs and Stones*, part of the Naturalists' Handbook series, is due to be published in July by Pelagic Publishing. This edition has been substantially enlarged as well as updated, with additional keys to groups such as mites, collembola and vertebrates. As in the first edition, the keys do not include every British species, but are designed to ensure that the person using them is not led into a misidentification, some



couplets ending at generic level or higher if necessary. As with those for other groups, the millipede, centipede and woodlouse keys have all been brought up-to-date.

As previously the text includes information about how to look for the animals, details of the environment in which they live and suggested ideas for projects. The second edition has photographs of representative species and habitats as well as line

drawings. The keys include line drawings in the margins to make it easy to use them and this full-colour book is expected to retail at around £25.

Helen Read

American Isopod and Myriapod Group

Recently I came across the website of the *American Isopod and Myriapod Group* (AIMG):

<https://www.americanisopodsmiriapods.com/>

The 'Group History' tab states that AIMG was founded in October 2022 by Nathan Jones and Sequoia Wrens (both active verifiers on the 'international' iNaturalist), in collaboration with others. AIMG ambitiously includes all species of Isopoda and Myriapoda occurring across North and Central America (a vast area!). Their aim is to enable accurate identification, publish distribution information, and conduct research on these species groups through social media, its website, other online publications (newsletter, journal, study notes and AIMG's bulletin *Venezillo*) and field meetings. The website was only created on 1st January this year so it's pretty much still under construction. However, it already contains a wealth of information.

For example, clicking on 'Taxonomic Guide to Isopods of North America' gives access to a series of dichotomous keys allowing identification to family level of all terrestrial, freshwater and marine isopod species known from AIMG's vast target area. The keys are work in progress and the stated intention is to add keys to genera and species as and when they are completed. In addition there are a number of useful guides based on colour images (under 'Visual Guides') to separate 'tricky' species pairs; for example *Porcellio spinicornis* vs. *P. scaber* and *Armadillidium vulgare* vs. *A. nasatum* (four European species that are introduced and widely naturalised). In contrast clicking on 'Taxonomic Guide to Myriapods of North America' simply opens a basic key to differentiate the four Myriapod

classes: Diplopoda (millipedes), Chilopoda (centipedes), Symphyla (symphylans) and Pauropoda (pauropods). AIMG intends to compile identification keys for these groups too, but pending input from a Myriapod expert.

There's also a very interesting section under 'Parasites, Viruses and Predators'. In the case of the Myriapods there are some spectacular (to my UK based eyes) predators of American millipedes. For example there are the large and colourful specialist predators, the Millipede Assassin Bugs (Reduviidae: Ectrichodiinae). And then there's the ground beetles *Promecognathus* spp. (Carabidae) which inhabit the west coast of North America. These specialised predators of Xystodesmidae millipedes (Polydesmida) are very tolerant to their prey's hydrogen-cyanide defence secretions. They use their large elongated mandibles (looking a bit like our own snail munching *Cychrus caraboides*, but on steroids) to decapitate their prey and eat them segment by segment. For the woodlice it includes mention of the Woodlouse Flies (Rhinophoridae), whose larvae are internal parasites of woodlice (recently highlighted in *BMIG Newsletter* 42 (2021) pg 3; New Recording Scheme for 'Woodlouse Flies' Rhinophoridae) and the *Dysdera* spider, a specialist woodlouse predator, also familiar to British and Irish workers. For both Isopods and Myriapods it also includes mention, with images, of various fungi and bacteria that are associated with woodlice (presumably more relevant to those keeping live cultures?).



The website also includes much information about keeping live woodlice in culture (under 'Isopod Hobby'). Although beyond BMIG's remit, which covers 'wild' woodlice, these endearing creatures (to quote the late Steve Hopkin) are widely kept as pets or as 'clean-up crew' within a terrarium for housing reptiles, etc. AIMG estimates an active 'hobby' community of over 25,000 people in North and Central America and aims to correct widely held misconceptions and to provide details on how to best care for multiple species.

Although clearly in its infancy this is a website making great strides forward and worth keeping an eye on in the future. Anyone wishing to join AIMG will find a membership application form under the 'Home' tab (membership is free), which also includes an additional form for those willing to offer help to the group and/or its website.

Steve Gregory

Key to the Woodlice of Northern France

Crustacés Isopodes terrestres du Nord de la France (Crustacea, Isopoda, Oniscidea): Clé de détermination illustrée by Franck Noël and Emmanuel Séchet is a fully illustrated key to the identification of the woodlice of Northern France. Comprising 52 pages, including 93 colour figures, this was published online in August 2021 and is available as a pdf from:

https://www.researchgate.net/publication/355145019_Cle_des_Isopodes_terrestres_du_Nord_de_la_France_2021

Essentially this is an updated and expanded version of the key to Woodlice of North-West France (*Isopodes terrestres du Nord Ouest de la France*) published in 2007 by the same authors. However, this updated key includes additional species (69 sp. vs. 51 sp. in the earlier version) and is superbly

illustrated with both colour micrographs of key identification characters (just black and white line drawings previously) and also habitus photographs of live animals. The text is in French but the 93 colour figures help make it accessible to readers of any language. The publication begins with a fully illustrated glossary highlighting the key characters used for identification. Then follows the taxonomic checklist of the 69 species either known to occur from the Central Massif northwards or ‘expansive’ species that are known to be spreading northwards and/or westwards and therefore expected to be found in northern France soon. Species from the Pyrenees, the Mediterranean region and Corsica are omitted and when included well over 200 species are known in France (Noël & Séchet, 2021). The authors state their long term intention to include these ‘southern’ species in a later revision and therefore to provide a long overdue update to the keys published in *Faune de France* by the late great Albert Vandel back in the early 1960s.



The dichotomous identification key includes figures of key characters, a brief description and habitus image of each species, its typical habitat, and in

many cases potential confusion species. Coincidentally, the key also includes all the known native and naturalised (outdoor) woodlice known to occur in Britain and Ireland, except *Metatrichonicoides celticus*. This species is currently only known (globally!) from a handful of sites in Wales and one site near Bristol, but I suspect, despite its omission, this elusive species will be found one day in northern France. Thus this publication is of great relevance to British and Irish recorders; not least that some of the species of northern France could eventually make it across ‘La Manche’ (aka The Channel) into our area.

In the past we island dwellers seem to have been a bit complacent about which species of woodlice occur on our lands. For example, back in the 1990s Steve Hopkin discovered *Haplophthalmus montivagus* and *Trichoniscoides helveticus* while examining museum specimens purporting to be *H. mengii* and *T. sarsi* respectively. More recently (2017), it took members of the Belgium woodlouse working group (SPINICORNIS) to notice that two species of *Philoscia*, the common *P. muscorum* and the ‘southern European’ *P. affinis*, actually occur in the UK. When examined, BMIG’s reference collection of *P. muscorum* was found to include a few specimens of *P. affinis* dating back to 2004 and it’s probably been here since post glacial times (but no-one, myself included, had noticed!). Thus, we should always be aware that additional species, which could be overlooked as more familiar ones, could be found way beyond their known range. Species ‘out of range’ that have been noticed recently include the ‘Irish’ *Oritoniscus flavus* unexpectedly found near Edinburgh in 2010 and the central European *Hyloniscus riparius* discovered in central England last year (*BMIG Newsletter 45*, Autumn 2022, p. 3). Other ‘continental’ species may be on their way! One possibility is *Trachelipus razzautii* (Arcangeli), a species included in this latest French key, which seems to be rapidly spreading northwards and westwards from southern Europe (Franck Noël, pers. comm.). And what are the odds on *Chaetophiloscia elongata*

(Dollfus), among other possibilities, being found in the UK, which is currently known close to the northern French coast? Is this the unidentified ‘*Chaetophiloscia* sp.’ recorded in the 1980s from the Isles of Scilly?

The authors are to be congratulated for the publication of this readily available and user-friendly identification key which should prove to be an invaluable guide for British and Irish workers despite being on the wrong side of La Manche. Highly recommended; download it today.

References

Noël, F & Séchet, E. (2007) Crustacés Isopodes terrestres du Nord Ouest de la France (Crustacea, Isopoda, Oniscidea); Clé de détermination et références bibliographiques. *Invertébrés Armoricaïns* 2: 1-48.

Noël, F & Séchet, E. (2021) *Inventaire des Crustacés Isopodes terrestres (Oniscidea) de France métropolitaine: bilan des sept premières années (2014 à 2020)*. Inventaire National du Patrimoine Naturel, Muséum national d’Histoire naturelle, Paris. 27 pp.

Steve Gregory

An unexpected woodlouse in France

Woodlice are a relatively well-studied group of arthropods in France (see **Key to the Woodlice of Northern France** above!). Thus, it comes as a great surprise that a woodlouse ‘almost new to science’ has been discovered on the north Atlantic coast of Brittany in north west France, within a biogeographical stones-throw of our shores in south-west England.

Buchnerillo atlanticus sp. nov. (family ‘incertae sedis’) was first discovered in 2020 at a single site on the Atlantic (Cantabrian) coast of Asturias, northern Spain (Garcia & Robla, 2022). Then in February 2022, as its formal description was ‘in press’, specimens of a similar looking creature were photographed during a survey of molluscs

occurring along the foreshore of the Estuaire (Estuary) de la Rance on the Atlantic coast of Brittany. Targeted surveys to collect specimens confirmed that this was indeed a second, and entirely unexpected, site for *B. atlanticus* sp. nov. Subsequent examination of photographs revealed that the species was first observed in northern Brittany as early as 2015 and it is now known from two additional localities; Estuaire du Trieux and Estuaire du Jaudy (Noël et al., 2023). The authors consider this to be an over-looked native species in France due to its small size and elusive habits. There are three other known species of *Buchnerillo*, each with a distinct geographical range: *B. litoralis* Verhoeff occurs around the Mediterranean, *B. oceanicus* Ferrara on the coasts of the Indian Ocean and *B. neotropicalis* Taiti et al. on the coasts of the Pacific Ocean. This new species, the clue’s in the name, is from the European Atlantic coast.

Buchnerillo atlanticus is a small ball-rolling woodlouse some 2 to 3 mm in length. The body is reddish or yellow-orange in colour and lacks the ‘rough’ tubercles seen in its congeners. When enrolled its small size and coloration make it easily over-looked as a grain of sand! In Brittany specimens have been collected from around the high tide mark within estuaries (as in south-west England these are ‘flooded’ rias), typically under rocks partly embedded into underlying silty sand or clay substrate. Hence it’s frequent association with the supralittoral centipede *Geophilus seurati*. Another species frequently found at known sites is the snail *Truncatella subcylindrica*, a Nationally Rare species in the UK known mainly from the coast of southern England. Other species recorded include the woodlice *Miktoniscus patiencei* and *Halophiloscia couchii*; the intertidal isopods *Sphaeroma serratum* and *Paragnathia formica*; and the centipede *Hydroschendyla submarina*.

This is an elusive species, as even at its few known sites it has not been found during every targeted survey to look for it. In addition the authors searched several localities with similar ecological conditions but no additional sites for *B. atlanticus*

were found. In this sense it is perhaps similar to *Stenophiloscia glarearum*, which seems to come and go at known sites triggered by unknown factors. Perhaps the most likely place to look for *B. atlanticus* in Britain would be the rias of south-west England, or perhaps on the Channel Islands. I reckon the odds on finding *B. atlanticus* in Britain should be similar to finding *Metatrachoniscoides celticus* in France; i.e. it's probably there but can anyone actually find it!

References

Garcia, L., & Robla, J. (2022). *Buchnerillo atlanticus* sp. nov., a new halophilic woodlouse (Isopoda: Oniscidea: incertae sedis) from the Atlantic coast of the Iberian Peninsula, with ecological remarks. *European Journal of Taxonomy* **821**(1): 1-15.

<https://doi.org/10.5852/ejt.2022.821.1793>

Noël, F., Adam, M., Corbion, P., Gulley, F. & Cochu, M. (2023) Première mention de *Buchnerillo atlanticus* Garcia & Robla, 2022 (Isopoda: Oniscidea) en France (Bretagne), *Invertébrés Armoricaïns* **23**: 57-70.

Steve Gregory

Three species of *Brachyiulus* millipede in the British Isles?

Species of *Brachyiulus* millipede have a characteristic appearance, small (c. 8 to 15 mm long) and brown with two creamy yellow dorsal stripes. Eight species are known across Europe, but just a single widespread and relatively common species, *B. pusillus*, is included in Paul Lee's (2006) Millipede Atlas. Consequently it was readily identified in the field by experienced recorders, without microscopic examination. However, in 2009 *B. lusitanus* was discovered in the gardens at Eden Project, Cornwall, where it was probably introduced and subsequently it has proved well established there. Despite the specific name, this

species is widespread in south-eastern Europe. It is identical in appearance to our *B. pusillus* and only males can be identified by examination of their gonopods.

In June last year (2022) Andy Marquis extracted a male *Brachyiulus* specimen from a Berlese sample collected from willow woodland infested with Japanese Knotweed on the island of Guernsey. A Berlese funnel uses a heat source to extract invertebrates from soil samples. As an interesting aside, it was a Berlese (same person?) who first described the genus *Brachyiulus* back in 1884. Images of Andy's specimen and its gonopods were posted on the BMIG online group (see <https://www.facebook.com/groups/407075766387553/posts/1611353692626415/>), but it didn't seem to fit the usual suspect, *B. pusillus*, nor the outside bet, *B. lusitanus*. Fortunately, Zoltan Korsós provided a copy of his 'review of the *Brachyiulus* in Hungary' (Korsós & Lazányi, 2020) which enabled a provisional identification of *Brachyiulus bagnalli*, a widespread eastern European species. This is almost certainly another unintentional introduction to the British Isles.

It is possible that both *B. lusitanus* and *B. bagnalli* may be found at other synanthropic sites in Britain and Ireland, such as glasshouse and ornamental gardens. When *Brachyiulus* specimens are encountered, especially in such habitats, please retain male specimens for microscopic examination. If you don't check specimens you will never find one!

Reference

Korsós, Z. & Lazányi, E. (2020) Present status of the millipede fauna of Hungary, with a review of three species of *Brachyiulus* Berlése, 1884 (Diplopoda). *Opuscula Zoologica Budapest* **51**(2): 87-103.

<http://dx.doi.org/10.18348/opzool.2020.S2.87>

Steve Gregory

Finding *Idotea linearis*

Idotea linearis (Linnaeus, 1766) is one of the largest and most distinctive isopods that can be found around the shores of Britain and Ireland. It measures up to 40 mm, with long antennae, an elongated body and emarginate pleotelson tip, making it difficult to confuse with any other species. You'd think, then, that it would be an easy species to find, but unfortunately that's not the case as it mostly lives beyond the littoral zone. Unless you're one of those lucky people you see on the internet who happens to chance upon *Idotea linearis* on the water's edge (usually whilst walking the dog), you're going to struggle to find the species without knowing exactly how and where to look for them. Hopefully the advice in this short piece will dramatically increase your odds of finding this impressive species.

In order to give yourself the best chances of finding *Idotea linearis*, you should visit a sandy shore on as low a tide as you can get, preferably a low spring tide (slightly silty sand can also work, as long as you can walk on it, but often visibility is very poor on these kinds of shores). You'll need reasonably calm conditions and good water quality, as crashing waves and silty water are going to make the job of spotting *Idotea linearis* a lot harder or even impossible. I've found summer to be the ideal time, as the weather and visibility are better and the water isn't so cold. Beaches with fine seaweeds (e.g. *Scytosiphon lomentaria* and *Ceramium* spp.) growing in the substrate are particularly productive (*Zostera* Eelgrass is apparently also a favoured habitat). With a cheap goldfish net in hand, you should wade out to about knee depth, just far enough to avoid the surf (a swimming costume, at least on your bottom half, is essential, and a pair of beach shoes is handy for protecting your feet from various hazards, including Lesser Weever Fish, *Echiichthys vipera*). Wandering about in this zone may reveal individual *Idotea linearis* swimming

freely, but you should also investigate any floating clumps of seaweed (which will often also contain other *Idotea* species) and, especially, any tufts of fine vegetation growing on the seabed. Gently sweeping your goldfish net through these tufts can turn up several *Idotea linearis* at a time. Specimens can be potted for further examination (indeed I rarely go for a dip in the sea without carrying a pot in the inside pocket of my swimming shorts!).



Idotea linearis, swept from *Ceramium* at Portobello, Midlothian, in August 2022 (photo by Warren Maguire).

And that's it. Given the right location and conditions, *Idotea linearis* is not a particularly hard species to find, even though you'll probably never see them otherwise. While you're at it, look out not only for other *Idotea* species, but also for *Eurydice*, which can be very common in the surf as the tide rises. Oh, and watch out for those Lesser Weevers, not just because they will give an extremely painful injury if you stamp on them with a bare foot, but also because they are the host of the 'tongue-biting' parasitic isopod, *Ceratothoa steindachneri* on southern British shores. If you somehow happen to net one, the usual disclaimers apply...

Warren Maguire

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