



BRITISH ISOPOD STUDY GROUP

NEWSLETTER 38

Autumn 1995

Edited by David Bilton

Editorial

There is good news on the new atlas front in that the job of checking data entries has now been completed, and all record cards plus annotated printouts returned to BRC in the Summer. Hopefully we should see the finished maps plus some text sometime next year. Many thanks to those who agreed to spend some time ploughing through the records! As you will see below *Stenophiloscia* has "returned" to our shores, this time in Suffolk, after a gap of nearly 20 years. Jon Daws' record emphasises the difficulties of finding this species by hand in Britain. The other really outstanding record since Newsletter 37 must be our discovery of *Eluma purpurascens* during the April field meeting in Cumbria (see below). Next year's meeting will be at the other end of England in Dorset, where one aim will be to investigate underrecorded areas.

Stenophiloscia zosteræ in Suffolk

On 30/12/1994 I visited Shingle Street, one of the few remaining natural habitats in Suffolk. To the north of the site, in the estuary of the River Ore, the shingle dips into saltmarsh. Here a single male of *S. zosteræ* was found beneath driftwood, together with numerous sandhoppers, in a strandline on a vegetated shingle spit (TM 375444). The spit was on the landward side of the Ore, with another wide tidal stream outlet on the other side, half a kilometre from the river's mouth. The previous tide had been high, turning the spit into several small shingle islands which had been completely submerged over the following few days. The specimen was slightly damaged when collected, with both its uropods missing. It moved slowly, and at first sight I mistook it for a pale immature Porcellio scaber but it looked too long for its width. It is possible that the specimen was only collected due to its damaged state. Once under the microscope I could see the three segments to its flagellum and the step between pereon and pleon. I have seen hundreds of specimens of *Halophiloscia couchi*, so I also noted that the antennae were more proportional to the length of the woodlouse.

Jon Daws

19 The Portway, Leicester, January 1995.

Ligia oceanica caught in spiders webs

Ligia oceanica is common on Hilbre Island, Cheshire (SJ 18-88-) and regularly enters the bird observation hide where individuals frequently entangle themselves in the webs of the spider *Amaurobius similis* Blackwall. During a visit to Hilbre on 31/12/1993 I found over a dozen *Ligia* dangling dead in the numerous webs of *A. similis*. All of the specimens were probably immature and measured between 10 and 15mm in length. None appeared to have been damaged in any way by the spiders. During another visit on 21/11/1994 at least 20 immatures had suffered the same fate. Outside the hide *A. similis* inhabits crannies in walls and rocks, as does the closely related *A. fenestralis* (Stroem), but I have never encountered a *Ligia* in the many webs I have examined in these situations.

Chris Felton

Liverpool Museum, William Brown Street, Liverpool L3 8EN, April 1995.

320 X 100

Comments on habitat selection by Trichoniscoides saeroeensis

I was interested to read Martin Cawley's idea in Newsletter 36 that there may be competitive exclusion between *Trichoniscoides saeroeensis* and *Trichoniscus pygmaeus*. Evidence suggesting some sort of exclusion between these two species was actually first observed in the Warton Crag mines where *saeroeensis* was found in 1964, the two never been found in the same place, despite occurring in apparently similar habitats in different mines (Moseley, C. 1970. *Trans. Cave Res. Group of GB* 12: 43-56). There was no discernable cause for the observed pattern of distribution, both species being found in rotting timbers in Victorian mineworkings in limestone. Accordingly the observation was merely recorded with no attempt at explanation. *Androniscus dentiger* was also found in deep mine timbers on a single occasion. At the time there was no reason to see this record as significant, but I have recently (1994) found both *dentiger* and *saeroeensis* on the same piece of old timber in another Victorian mine in limestone, this time on the Isle of Man, a record which thus suggests that these two trichoniscids can live together. If indeed they are normally found together, then our understanding of the factors determining the distribution of the better known *A. dentiger* may help us to understand the distribution of *saeroeensis*. I am not personally able to offer any comments on their distribution in surface habitats, but I do have some understanding of "cavernicolous" faunas.

A. dentiger is frequently found in caves in Britain and is known to be exceptionally tolerant of water and able to withstand total immersion with ease, as noted by Chapman (1993. *Caves and Cave Life*) who observed the species feeding side-by-side with the aquatic *Asellus cavaticus*. Such tolerance is a typical characteristic of subterranean invertebrates and is thought to be related to the fact that the mesocavernous voids that form their primary habitat are subject to flooding during rainfall. The fact that *saeroeensis* has been found underground along with *A. dentiger* suggests the possibility that it too may be exceptionally tolerant of water, and indeed there is some observational evidence that this may be the case. The site where *saeroeensis* was first found in England in the Warton Crag Mines was a piece of mine timber about 0.5m in length, lying in a small alcove and bathed in a continuous trickle of water falling from the adit roof just above. A dozen individuals were taken, emerging from the soaking wet wood as it dried out back in the laboratory. The piece of wood was subsequently returned to the identical spot where it had been found and was examined on several occasions over the next five years. It was always very wet and one or two *saeroeensis* could generally be found on it. As there was no other organic material in the mine adit anywhere near this alcove and thus no visible source for the population, the suggestion was made that the animals were reaching the alcove from a centre of population elsewhere, carried by the water flowing from the roof (Moseley, *op. cit.*). The second British Isles record was in an Irish cave where it was reported in interstitial water gushing out of a wall (Sheppard, E. 1968. *Trans. Cave Res. Group of GB* 10). The recent underground record from the Isle of Man is less convincing as evidence of water tolerance, but is certainly not at odds with the idea. The animal again was on a piece of very wet mine timber which was partly submerged in water. In 1993 I visited the site of the original discovery of the species in Britain, Grizedale Wood adit and found the same piece of timber. There was less water and the wood is now damp rather than soaking wet, and despite looking carefully, *saeroeensis* seemed to be absent.

Trichoniscus pygmaeus has also been collected from several caves and underground sites in Britain, but seems to be less characteristic of our cave fauna than *dentiger*. The species is not mentioned by Chapman (*op. cit.*) and in my experience is more likely to be found in the relatively dry threshold part of a cave than in the true deep cave region.

I suspect, therefore, that one factor influencing habitat selection by these three species is their relative tolerance of water and ability to withstand immersion. It is also possible that *saeroeensis* is widespread in the mesocavernous voids of the so-called "subcutaneous zone" i.e. the highly fractured rock zone lying below the soil.

Max Moseley

Box 132, Douglas, Isle of Man, Nov. 1994.

Trichoniscoides in Suffolk

I visited seven churchyards in East Suffolk on 20/12/1994, a day on which the temperature rarely rose above freezing after a heavy overnight frost. *Trichoniscoides albidus* and *T. sarsi* were found at five and two of these sites respectively. Several of these churchyards are built on slightly higher ground than their immediate surrounds. The *Trichoniscoides* were found beneath bricks, pieces of concrete and fallen gravestones around the church walls, often in pockets where the vegetation cover was sparse. The fact that species of the genus are brought nearer to the surface by frosts is fairly well documented. What was most interesting to me was that *T.*

albidus was found in fairly dry areas, away from ditches and other wet habitats, around the walls of churches. This raises the possibility that in low-lying eastern England at least, *T. albidus* is present everywhere in small numbers and is only brought to the surface significantly by heavy frost or high soil moisture levels. I have also found the species occasionally, once in large numbers, around a church wall after several days of relatively mild weather. There are several possible explanations for these sightings-*Trichoniscoides* are particularly common in Suffolk; the soil around church walls is kept moist by pies and roof run-off; or I was particularly "lucky" in my choice of churches visited! There is probably some truth to all these factors, and I will continue looking for answers in other churchyards.....

Jon Daws

19 The Portwey, Leicester, March 1995.

Finds at the Cumbrian meeting, 1995

The weather wasn't too bad for the western Lake District, and the West Cumbria Field Centre at Rowrah provided excellent value for money. A major change was made to at least one prospective distribution map at the last minute-that of *Eluma-purpurascens*. Long known only from the Dublin area and more recently reported from a few sites in East Anglia and South-East England, this woodlouse was discovered at three sites in Cumbria, two close to Maryport Harbour, the other in the Workington area, by Paul Lee and Jon Daws & Steve Gregory. At Maryport *Eluma* was abundant under stones and refuse on waste ground adjacent to the docks. Obviously this is another case of the species being introduced, most likely on ships, since both towns were important trade ports until relatively recently. It was interesting that *Eluma* and *Armadillidium vulgare* do not appear to coexist in the area. The latter was also taken in Workington, but in different sites to *Eluma*. Trips to Silloth and Whitehaven dock areas failed to produce any other populations, but the species may well be more widespread in West Cumbria. Maryport is now the most northerly locality in the world for this native of the Iberian Peninsula!

Another rare pill woodlouse turned up, *Armadillidium pictum* being found by Steve Gregory and Jon Daws in two of the Borrowdale Oakwoods. *Platyarthrus hoffmannseggii*, here at the edge of its range was reported from Maryport and St. Bees Head. No sign of *Metatrachoniscoides* could be found at the latter site, where Steve Hopkin took a possible female in the 1980s. Other species recorded during the meeting were *Androniscus dentiger*, *Haplophthalmus mengei*, *Trichoniscoides saeroensis*, *Trichoniscus pusillus*, *T. pygmaeus*, *Ligia oceanica*, *Philoscia muscorum*, *Oniscus asellus asellus*, *Porcellio scaber* and *P. spinicornis*.

BISG/BMG Meeting 1996

This will be at the Kingcombe Centre at Toller Porcorum in Dorset on 11-14 April 1996. Costs will be £25/person/day including VAT, with excellent food. Accommodation is for up to 19 people (so book early to guarantee a place) in single/twin/triple bedded rooms. The centre is on an organic farm (380 acres) run by the Dorset Wildlife Trust with hay meadows, pasture and woodland. The objective is to get into the largely unworked area of N Dorset and S. Somerset (including exciting places such as Hardington Marsh and Hardington Mandeville!). The coast is less than 10 miles away at Bridport.

More details in the enclosed booking form

Paul Harding

Monks Wood, Sept. 1995

Second European Crustacean Conference

Liege, Belgium, 2-6 September 1996 will be the venue and time of this meeting. All aspects of crustacean biology are likely to be covered in the program which also includes the 7th meeting of the "Groupe d'etudes et de reflexions sur l'evolution des crustaces" and the Crustacean Larval Conference.

Details can be had from the secretary general at the address at the end of the newsletter. The first circular is dated Sept. 1995, and interested parties are advised to act fast.

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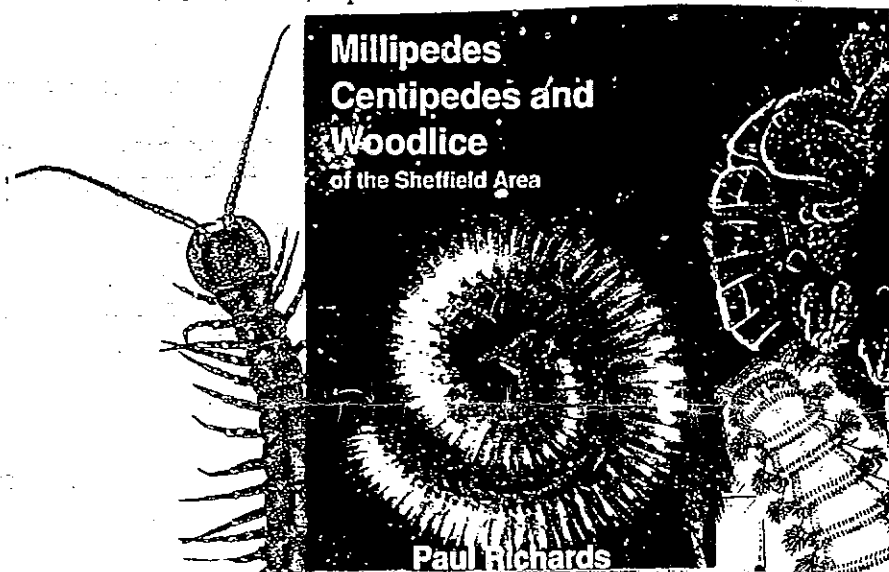
Review

Flasarová, M. 1995. Die Isopoden Nordwestböhmens (Crustacea: Isopoda: Asellota et Oniscidea). *Acta Scientiarum Naturalium, Brno*, 29 (2-4), 1-156. (In German with a brief English summary)

Marie Flasarová has published a useful account of the distribution of woodlice and waterlice in northwest Bohemia (Czech Republic). It includes 10km square distribution maps for 21 species and information on the ecology and distribution of 36 species, with detailed lists of localities and dates. Nearly 600 sites have been surveyed. Over 20 of the species covered occur in Britain/Ireland. Like *Woodlice in Britain and Ireland* (1985) it also reviews the characteristic species of selected biotopes, but it also examines the faunas of 9 biogeographic regions, including a very extensive area of open-cast brown coal mines. There are many similarities with our own fauna, with *Oniscus asellus*, *Porcellio scaber* and *Trichoniscus pusillus* being the most frequently recorded species, but with *Hyloniscus riparius*, *Porcellio spinicornis*, *Trachelipus ratzeburgi*, *Cylisticus convexus* and *Ligidium hypnorum* also high in the league table.

Paul Harding

Monks Wood, Sept. 1995



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2nd European Crustacean Conference:
Secretary General, Laboratory of General Biology,
Institute of Zoology,
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BELGIUM

	10 - 15 underneath		No	Red
	6 - 12 underneath			Reddish
	4 - 6* above 6 - 12 underneath			Pale yellow darker head
	5 - 8 underneath including 1 isolated			Pale yellow darker head = <i>G. insosy</i> Brolemann

Antennae on 3rd segment (g. 20)

*Haemaphysalis danicus**