

## THE BRITISH ISOPOD STUDY GROUP

Newsletter of the Isopod Survey Scheme

Number 22

May 1987

### EDITORIAL

Things have been quite active on the isopod front since the last newsletter. Our annual gathering with the British Myriapod Group, which was this year held from 23-26 April at Langford House near Bristol, was a great success thanks to efficient organization by Doug Richardson. We had the unnerving experience of hot sun beating down on us from cloudless skies for the entire duration of the meeting instead of the usual deluge. This unfortunately meant that conditions were very dry but recorders still managed to collect 18 species from more than 20 sites (see Table). Isopoda was 'launched' (details below), we learnt that Armadillidium pictum and Metatrichoniscoides celticus were to be included in the 'Non-insect' Red Data Book, and Noel Jackson regaled us with one of his 'odes' (the posh car has now been returned!). The discovery of a species of Haplophthalmus new to Britain was reported (fully described in Isopoda vol 1) and then found by David Bilton at Bathford Quarry near Bath during the meeting. It was encouraging to see several new faces at the meeting including Marie-Louise Célérrier and Jean-Jacques Geoffroy from Paris who presented an excellent talk (in perfect English!) on their research into isopod and millipede feeding strategies. Let us hope that next year's meeting (probably in Sussex) will be as well-attended and enjoyable.

### ISOPODA

Issue 1 of this new publication is now on sale (see leaflet enclosed). It is hoped to publish Isopoda on an annual basis providing enough material is submitted. I am very keen to make it as accessible as possible to non-professional zoologists for the publication of articles of a general or specialist nature which would not normally be considered by a mainstream scientific journal. The results of student projects, county surveys of woodlice distribution or just small observations which would otherwise never be published are all welcome. Please write to me if you are considering submitting something for Isopoda so I can advise on format of diagrams, style etc. Articles of a speculative nature will be encouraged. The deadline for contributions for the next issue is the end of the year (1987!).

### WHEN IS AN ARMADILLIDIUM NOT AN ARMADILLIDIUM?

The University Marine Biological Station on Great Cumbrae Island in the Clyde Estuary runs a specimen supply service which is able to send live material of most marine organisms to universities and colleges in the UK for use in experiments and student practical classes. While looking through their catalogue last year I was surprised to see that they were offering "Armadillidium sp." at £1.70 for a dozen. Since no species of Armadillidium had been recorded north of a line between Troon and Dundee, mischievous curiosity overcame thrift and I splashed out £1.70 and waited with baited breath to see what would arrive in the post. About a week later, a large packing case arrived in my room (about 40 cm square and 15 cm high) which I eagerly prised apart revealing a smaller package which contained 14 very lively woodlice. Three species were included! Ten specimens of Porcellio scaber, one juvenile Ligia oceanica and 3 Cylisticus convexus. To add insult

WOODLICE SPECIES COLLECTED AT  
 B15G/BMG MEETING, LANGFORD HOUSE,  
 LANGFORD nr. BRISTOL 23-26 APRIL  
 1987

ORDNANCE SURVEY ST (31)  
 GRID REFERENCE

SITE

SITE	ANDRONISCUS DENTIGER	ARMADILLIDIUM ALBUM	ARMADILLIDIUM DEPRESSUM	ARMADILLIDIUM NASATUM	ARMADILLIDIUM VULGARE	(H)LISTICUS CONVEXUS	HARLOPHTHALMUS DANICUS (H)	HARLOPHTHALMUS MENDEL (H)	HARLOPHTHALMUS N.T.B. (H)	LIGIA OCEANICA	LIGIDIUM HYPOURUM	ONISCUS ASELLUS	PHILOSCIA MUSCORUM	PLATYARTHRAUS HOFFMANNSEGGI	PORCELLIO SCABER	TRICHONISCUS SAERKOEENSIS	TRICHONISCUS POSILLUS	TRICHONISCUS PYGMAEUS
BERROW SANDS	✓											✓	✓	✓	✓		✓	✓
BREAN DOWN		✓			✓							✓		✓	✓		✓	✓
BRENT KNOLL				✓	✓							✓		✓	✓	✓	✓	✓
WESTON WOODS (BEACH)	✓				✓		✓					✓	✓	✓	✓	✓	✓	✓
SAND POINT	✓			✓	✓					✓		✓	✓	✓	✓	✓	✓	✓
DOLEBURY WARREN			✓	✓	✓							✓	✓	✓	✓	✓	✓	✓
BURINGTON COOMBE			✓	✓	✓						✓	✓	✓	✓	✓	✓	✓	✓
MENDIP LONG WOOD				✓	✓							✓	✓	✓	✓	✓	✓	✓
CHEDDAR GORGE				✓	✓							✓	✓	✓	✓	✓	✓	✓
LANGFORD HOUSE (GROUNDS)	✓		✓	✓	✓			✓				✓	✓	✓	✓	✓	✓	✓
LANGFORD HOUSE (BATHROOM)*			✓	✓	✓							✓	✓	✓	✓	✓	✓	✓
BROCKLEY COMBE	✓			✓	✓							✓	✓	✓	✓	✓	✓	✓
EBBOR GORGE												✓	✓	✓	✓	✓	✓	✓
LEIGH WOODS												✓	✓	✓	✓	✓	✓	✓
ASHAM WOOD												✓	✓	✓	✓	✓	✓	✓
GREAT BRADLEY WOODS												✓	✓	✓	✓	✓	✓	✓
BATHFORD HILL	✓				✓							✓	✓	✓	✓	✓	✓	✓
BIDCOMBE WOODS			✓		✓							✓	✓	✓	✓	✓	✓	✓
SOUTHLEIGH WOOD					✓							✓	✓	✓	✓	✓	✓	✓
WEST YATTON DOWN					✓							✓	✓	✓	✓	✓	✓	✓
COLEANE PARK WOOD					✓							✓	✓	✓	✓	✓	✓	✓
GRAINS QUARRY PLANTATION					✓							✓	✓	✓	✓	✓	✓	✓
BEWLEY COMMON												✓	✓	✓	✓	✓	✓	✓
SPYE PARK												✓	✓	✓	✓	✓	✓	✓

\* INSIDE LIGHT SHADE OF FIRST FLOOR BATHROOM IN ACCOMMODATION. BLOCK - NO WINDOWS!  
 COMPILED FROM RECORDS SUPPLIED BY KEITH ALEXANDER, DAVID BILTON, GORDON BLOWER, JOHN BRATTON, ARTHUR CHATER, CHRIS HAMES, STEVE HOPKIN,

to injury, I had failed to find Cylisticus the previous year when I was teaching on a field trip on the Island despite a thorough search of the foreshore below the Marine Station where the specimens had been collected.

I wrote to the Director of the Station to point out the error and he quickly replied apologizing for the mistake which had apparently originated in the days when the Station was run by the Scottish Marine Biological Association. The catalogue has now been amended but who knows, perhaps the next isopodologist to visit Cumbrae will find Armadillidium vulgare. The species has reputedly been recorded from elsewhere in the Clyde Estuary (Robertson, D. 1888. Amphipoda and Isopoda of the Firth of Clyde. Trans. Nat. Hist. Soc. Glasg., 2, 9-99). I should also point out that this is the first time in over 15 years of dealing with Millport that the Zoology Department at Reading has ever had cause to complain about the service. The Isopod Mafia strikes again!

Steve Hopkin

#### SURPRISES ON THE DOORSTEP - AN ARGUMENT AGAINST "NEGATIVE" RECORDS

I wish I had £1 for every time it has been suggested to me that BRC should collect "negative" records (ie records where a species has been searched for, but not found). My reply is usually something like "appropriate for elephants, but inappropriate for isopoda". In my opinion it is very difficult to be certain that a species is truly absent, however thorough the search, but maybe I am just a jaundiced Pyrrhonian.

I have worked at Monks Wood for 20 years and several dozen experienced woodlousers have visited me there. Almost every visitor has done a little collecting around the site, mainly to find Trachelipus rathkei, a local speciality. However, in March 1987 I discovered the first specimen of Cylisticus convexus for Monks Wood; under a piece of damp cardboard immediately outside the side entrance to BRC. The cardboard had been outside for about one week and it spanned a joint between the concrete of a pathway and the concrete plinth of the building. The cardboard came from inside the building, but was clearly placed to sample a previously inaccessible population.

I had a similar experience with C. convexus at my own home when I excavated a specimen from a soak-away drain at the front of the house, but never saw another in 4½ years at the house. Several people had ceased to believe an early record of Armadillidium album from Yns-las dunes in Cardiganshire, but it has been refound recently. Doubt continues to be expressed about a record of Trichoniscoides sarsi from Bedfordshire, but I am confident that the correct sampling technique will re-find it there.

Anyone care to join an expedition to find Steller's Sea-cow?

Paul T Harding, Biological Records Centre

#### THE ITALIAN JOB

In September of last year, Steve Hopkin and I went to the Second Symposium on the Biology of Terrestrial Isopods, held in the mountain top town of Urbino, Italy. I was eager to go, particularly as this was my first international conference, and also because it was a unique opportunity to meet so many Oniscidea researchers, over 40 of whom (from 14 countries) were attending the Symposium.

So, with minimal luggage (sunglasses, shorts, hand lens), Steve and I arrived in Rome airport in bright sunshine, and then joined with some of the other delegates for the transit to Urbino. Together with Paul Harding and, from the University of East Anglia, Mark Hassall and Mark Dangerfield, we survived a 4 hour coach journey which took us north through the Appenine mountains. Electric storms welcomed us at Urbino, indeed the rain stayed with us for most of the meeting but at least it was warm! The weather did nothing to dampen spirits generated from the first evening when a warm, friendly atmosphere became warmer, friendlier and livelier after a trip to a bar in the local town square.

There followed 3 days intensive presentation of papers, and the UK delegates now including Stephen and Stephanie Sutton, had quite an advantage over many of the others as communications were all given in English. A wide range of topics included 3 papers on the extraordinary desert woodlouse Hemilepistus reamuri which is one of the most abundant macro-invertebrates in North Africa and the Middle East. These woodlice live in family groups and excavate burrows in which an optimal micro-climate is maintained. After foraging for food, they are able to identify the entrance of their own burrow by accurate orientation based on visual cues from the sun, moon or polarization of the sky, and chemical cues at the burrow entrance. Steve Sutton and Paul Harding highlighted the benefits and use of the UK Isopoda Recording Scheme showing for example how species' distribution can be correlated with variations in the physical and climatic environments. The distribution and ecology of the woodlice of Tuscany was described by our genial hosts Franco Ferrara and Stephano Taiti. It was soon apparent that a recording scheme in Italy would be rather more time consuming than here in Britain as in Tuscany alone, there are 117 species of woodlice! For me, one of the most interesting facts to digest was that Japanese workers had isolated, from Armadillidium vulgare, 86 milligrams of androgenic gland hormone (responsible for male sexual characteristics). To achieve this they had dissected 20 000 woodlice! Male delegates kept their distance!

A different problem with digestion arose when we were taken by coach every evening to a local restaurant and treated to 7-course banquets accompanied by copious supplies of wine, ending each night with a liqueur-tasting session. The last night was an exception ..... we had 8 courses, preceded by apertifs and accompanied by champagne (UK delegates won the cork popping race). The trouble with this meal was that most of the food was of crustacean or molluscan origin (including tiger prawns, razor clams and squid ovaries) which some delegates did not relish eating! This last evening was rounded off with the takeover of a local disco, to the bemusement of the regular clientele. The following day, several of us stopped off on the journey back to Rome airport to visit Franco Ferrara and Stephano Taiti's laboratory in the beautiful setting of Florence.

The Symposium was enjoyable and very stimulating, and it endorsed the benefits of such gatherings. One immediate outcome was the setting up of a register of Oniscidea researchers by Paul Harding to facilitate contacts between those who cannot always attend similar meetings. I'm hoping that the next meeting will be held in Australia where, as I discovered in Urbino, they call the woodlouse a 'wallabugga'! Finally, for anyone travelling to Italy, I'd like to warn against a liqueur called 'Amarro Ramazzotti' which I'm sure is made of distilled creosote.

Chris Hames, Department of Pure and Applied Zoology, University of Reading

## UPDATE ON PLATYARTHURUS AND ANTS

There has been an enthusiastic response to the mapping of ants associated with the woodlouse Platyarthrus hoffmannseggi and it is apparent that the provisional atlas of the associations (published in Volume 1 of Isopoda) will need to be substantially updated in the near future. Five species of ants were found in association with Platyarthrus by recorders during the recent meeting at Langford namely Lasius alienus, Lasius flavus, Lasius niger, Myrmica rubra and Myrmica scabrinodis. Please continue to send ants found with Platyarthrus to me. Records are added to the maps as soon as they are received.

Whether negative records are of value is doubtful. Without destroying a whole nest of ants it is not plausible to say that the woodlouse is definitely absent. However, I must own up to recently succumbing to temptation and having found just one specimen of Platyarthrus at the surface of a nest of Myrmica rubra, I proceeded to dig through the whole nest. In fact I found no further woodlice and the nest (in my back garden) was soon re-established. Perhaps it would therefore be excusable to perform such excavations on occasions although it would probably not be advisable with the less common species.

Chris Hames, Department of Pure and Applied Zoology, University of Reading

## BOOK REVIEW

The Woodlice Report by Benny and Mark. 1978.  
P.P.S.U. Portsmouth (no price stated)

This slim volume (31 pages) provides a completely new insight into the role of woodlice in society. It is a rather confusing strip cartoon story of woodlice invading (possibly from outer space) our happy and stable western culture, aided and abetted by a hairy, student drop-out type. The human seems to encounter a number of organisms (and orgasms) during drug-induced trips, the latter being portrayed in full-page psychedelic monochrome illustrations.

Woodlice are hardly the raison d'etre of this volume, but certainly they led to an interesting computer catalogue entry in the Cambridge University Library!

Paul T Harding, Biological Records Centre

## WHAT'S IN A NAME? 1

Our house in Norwich is home to all sorts of insect co-habitants and, although not particularly damp, also offers shelter to an occasional errant woodlouse. Porcellio spinicornis enters the south facing rooms at the front of the house while Porcellio scaber is more frequently found in the kitchen. This morning my 5 year old daughter found a woodlouse crawling up the stairs. She popped it into a tube and brought it to me to admire. "That's Porcellio scaber", I declared. After a short period of tuition she could say the name and went off muttering "Porcellio scaber". A few seconds later she proudly showed the specimen to her mother. "Mummy, I've caught a Poor-silly-old scaber". I suppose it was really!

Tony Irwin, Castle Museum, Norwich NR1 3JU

## WHAT'S IN A NAME? 2

A colleague at work saw my interest in a specimen of Porcellio scaber which was sharing our office accommodation and saw fit to demonstrate his great knowledge of these "insects" (!!!). "Not many people know that there are 2 different species of woodlice" he said. "That one's a 'Grammerzow' [our Porcellio room mate] and the other sort is the 'Chiggy Pig' [Armadillidium vulgare]". "How do you know that?" I asked. "Well my goldfish eat grammerzows but they can't swallow chiggy pigs"!

Steven Jones, Dunromin, Chapel Hill, Brea, Camborne, Cornwall TR14 9AZ

## COLLECTING IN HOTOUSES

In a letter from Tony Barber (British Myriapod Group) dated 21/12/85 came a suggestion. "Any chance of records from glasshouses and botanic gardens?" This prompted me to write to the Professor Regius of the Royal Botanic Garden, Edinburgh, for permission to collect in their Tropical Houses. This was granted.

Several visits to the Tropical Houses were made during the summer and I managed to collect 2 species from gravel on which plant pots containing orchids were standing which were clearly not members of the native British woodlouse fauna. To cut a long story short, the species were eventually sent to Franco Ferrara and Stephano Taiti in Florence for identification. The verdict on the 2 species was as follows:

1. Styloniscus mauritiensis (Barnard 1936), a species previously recorded from Mauritius and Hawaii! (Taiti & Ferrara 1983. Revue suisse Zool., **90**, 199-231).
2. I quote Franco Ferrara's reply. "This species is certainly neither a "Chaetophiloscia" species nor one of the 2 'alien' (tropical) species found in hothouses in Great Britain. ("Sephaphora patiencei and "Chaetophiloscia meeusei). It does not fit the definition of any genus of philoscids described with modern criteria, but there are many genera defined in a very bad way and it might belong to one of these. We could not recognize the species either. The species is easily distinguishable by the male characters, especially by the presence of a process on the merus of pereopod 7, similar to that of Philoscia muscorum. Since we do not know which part of the world it comes from, we dare not describe it as a new species."

One wonders what future visits may bring forth!

Charles Rawcliffe, 35 Comely Bank Road, Edinburgh EH4 1DS

## ISOPOD RECORDING SCHEME - MISCELLANEA

### Recent records of Porcellio laevis

This species was found recently in Bristol by Eric Philp under a pile of stones at the base of a stone wall near a compost heap some 20 metres to the left of the entrance to Churchill Hall (one of the University's halls of residence) at ST 56-75-. David Bilton has recently collected in the Botanic Gardens of Oxford University and informs me that Porcellio laevis is still abundant in the compost heap there (together with Porcellionides pruinosus).

## Identification of specimens

I am happy to identify voucher specimens of woodlice but please be sure to pack them securely with plenty of shock absorbing material. I am convinced that the Post Office have people specifically employed to jump up and down on glass specimen tubes so that when they arrive in Reading, I have to try to calm down other members of staff whose mail has been preserved in 70% alcohol!

## Filling in the recording cards

Although habitat data are not obligatory on the recording card, it is very helpful to include them for the benefit of future recorders who may want to return to the exact locality in search of a particular species. All that is needed is a brief sentence describing distance from the nearest town/village (eg 3 km north-west of Ambridge) and the microsite (eg under stones, in compost heap etc). This information is also helpful to me when I check the grid references.

## WHAT EATS WOODLICE? (AGAIN)

Observations on this topic continue to arrive. L S Garrad (Assistant Keeper, Manx Museum, Isle of Man) reports a record of the centipede Lithobius forficatus seen eating Porcellio scaber on a wall at Port Erin, and the snail Helix aspersa seen eating a dead Oniscus asellus. Perhaps the most detailed study on woodlouse predators was described by Sunderland and Sutton (1980) in their paper "A seriological study of arthropod predation on woodlice in a dune grassland ecosystem" (J. anim. Ecol., 49, 987-1004) in which a wide range of invertebrates reacted positively to 'woodlouse antibodies' with the precipitin test. My children have reacted with great enthusiasm to the challenge and have spent some considerable time denuding our garden woodlouse population by throwing isopods into the webs of spiders of different species. The verdict so far is that orb weavers such as Araneus diadematus are not partial to an isopod snack but that cribellate spiders (eg Amaurobius ferox) and the theridiid Steatoda bipunctata have no such objection and will eat woodlice readily. More observations please!

## ADDRESSES

All complete record cards, enquiries concerning the Isopod Survey Scheme and articles for inclusion in the newsletter or Isopoda should be sent to me at the following address:

Dr Steve Hopkin  
Department of Pure and Applied Zoology  
University of Reading  
PO Box 228  
Whiteknights  
Reading RG6 2AJ

Supplies of blank recording cards are available free from:

Biological Records Centre  
Monks Wood Experimental Station  
Abbots Ripton  
Huntingdon  
Cambs PE17 2LS

Newsletter 23 will appear in October 1987. Articles for inclusion to me by 30 September please.

Newsletter 22 edited by Steve Hopkin