REPORT ON THE BMIG FIELD MEETING IN KENT 2011

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INTRODUCTION

The 2011 BMIG field weekend, held from 14th to 17th April, was based at the University of Kent at Canterbury. The county has been extensively recorded for myriapods and isopods over the last century and in his introductory talk Eric Philp presented attendees with a species list for Kent along with a challenge to add even a single species so confident was he of the effort that had gone in to ensuring that recording in the county was comprehensive. However, the main purpose of this meeting, one for which a Defra grant had been awarded through Hymettus, was a systematic survey for what were then UK BAP species, the millipedes *Polyzonium germanicum* and *Metaiulus pratensis* both of which are Kent specialities.

Late thirteenth century archaeological deposits from Stonar (north of Sandwich) provide the earliest woodlouse record from Kent in the form of calcified remains of *Porcellio laevis* (Girling, 1979).

George Newport (1803 – 1854), one of the pioneers of myriapod studies in Britain, was born at Canterbury and published important papers on these animals between 1841 and 1856. His original description of *Lithobius melanops* was based on specimens actually collected by him from a garden at Sandwich in 1842. Other familiar species he described were *Lithobius pilicornis*, *Lithobius emarginatus* (*Lamyctes emarginatus* from New Zealand), *Cryptops anomalans* and *Geophilus vesuvianus* (*Henia vesuviana* from near Naples), all of which have been subsequently found in Kent.

The millipede *Cylindroiulus caeruleocinctus* was first recorded in Britain from near Sevenoaks (Pocock, 1900). Many of the myriapod and isopod records from the first half of the twentieth century originate from studies at the South-eastern Agricultural College in Wye and were often published in the journal of that organisation. For example, Theobald records the occurrence of *Blaniulus guttulatus* and *Geophilus flavus* in a study of damage caused to hop plants (1912). The arrival of the Brade-Birks at Wye was significant, not only in its impact on knowledge of the county's fauna (Brade-Birks & Brade-Birks, 1918), but that of Britain as a whole.

It was Rev. Stanley Brade-Birks who described *Archiboreoiulus pallidus* as a species new to science from a runner bean plot at the College (Brade-Birks, 1920b) and reported *Polyzonium germanicum* (Brade-Birks, 1920a) and *Stosatea italica* (Brade-Birks, 1922) as species new to Britain from sites in Kent. He almost certainly found the first British examples of *Lithobius muticus* in woodland at Wye (Notebook entry 3061, 8.10.20, "teste Ribaut & Brolemann" as he put it – both thought it was probably this species) but this record remained unpublished. Sholto Rolfe also used his time at Wye to publish a series of *Notes on Diplopoda* (Rolfe 1934, 1935, 1936, 1937, 1938 1939). In 1934 he was the first to note the presence of *Propolydesmus testaceus* in Kent, a species only recorded once previously in Britain, under stones in a chalk pit at Wye and in allotment gardens in Folkestone (Rolfe, 1935). In the chalk pit at Wye it was associated with *Brachydesmus superus*, *Brachyiulus pusillus* and the first British specimens of *Leptoiulus kervillei* (Blower & Rolfe, 1956).

Five years later Wye produced another species new to science when specimens of an unknown Julid millipede were collected with samples of hops. The species was described under the name *Metaiulus pratensis* and in the next couple of decades was recorded widely in Kent during wireworm sampling of recently disturbed grassland and collecting by Brade-Birks (Blower & Rolfe, 1956).

Various workers were recording in Kent in the second half of the twentieth century resulting in further notable discoveries. Lewis (1962) collected one of the earliest British specimens of *Geophilus fucorum seurati* from Whitstable and *Miktoniscus patiencei* was first collected in Britain from the Medway estuary in 1971. The latter went unrecognised for 5 years as the specimen was female and its identity was not established until 1976 when further specimens were collected in Cornwall and the Isle of Wight (Harding & Sutton, 1985). Harding & Sutton (1985) also reported the first Kent and second British site for *Eluma caelata* discovered at Herne Bay in 1980. *Lithobius peregrinus* was an unexpected addition to the British fauna when a colony was found at Sheerness (Barber & Eason, 1986) and when Tony Barber collected *Lithobius lapidicola* at Sandwich Bay in 1988 (Barber 1992) it was the first outdoor record of the centipede in Britain. Eric Philp, Adrian Rundle and Des Kime also contributed significantly to our knowledge of myriapods and isopods in the county through the latter part of the twentieth century.

METHODS AND SITES

Fieldwork during the BMIG field meeting in 2011 was a little more structured than has been the norm. All sites where the millipede *Polyzonium germanicum* had been recorded were identified and additional sites where the millipede might occur, mainly woodlands, were then identified with help from Kent Wildlife Trust. Over 50 sites in 26 different 10km squares were identified in total (see Table 1). KWT also assisted with gaining permission to visit these sites, many of them with no public access. Permission was obtained to visit other sites in the ownership of Natural England, RSPB, Sussex Wildlife Trust and the Woodland Trust. Packs containing site maps, record details where relevant and recording sheets were prepared for each site. In addition to any sites they chose to visit for their own interests, attendees were requested to visit at least one or two of the sites on each field day (15th and 16th April) and to follow a standardised protocol to search for *P. germanicum*. This involved recording the number of animals collected in 30 minutes hand searching in a 20m x 20m sample area. Rather than collecting for 30 minutes in one spot, six locations within the sample area were searched for 5 minutes each. Litter type, depth and moisture and vegetation structure and bare ground cover were recorded from each area.

Six local wildlife sites in the Medway valley were identified as potential habitat for *Metaiulus pratensis* and for field visits by a reduced number of BMIG members on 17th April (see Table 1). Steve Gregory, Paul Lee and Helen Read stayed on to record further sites on 18th and 19th April.

MILLIPEDES

The millipedes recorded from each of the sites visited are shown in Table 2. In total there were 26 species reported but no more than 9 species from any one site and none were recorded from two of the sites. Several species, not just the Nationally Rare and Nationally Scarce as one might expect but also some widespread and common species, were reported from just one of the sites visited. However, varying numbers of members were on each site for different periods of time, as is usually the case during BMIG meetings, so most of the recording was not standardised and there is limited value in a simple comparison of species richness.

TABLE 1: Details of recording locations / sites visited and recorders

Recorders: Keith Alexander (KA), Tony Barber (TB), Kevin Clements (KC), Mike Davidson (MD), Jim Flannagan (JF), Steve Gregory (SJG), Steffen Grossmann (SSG), Ken Hill (KH), Liz Joyce (LJ), Des Kime (RDK), Angela Lidgett (AL), Paul Lee (PL), Peter Nicholson (PN), Eric Philp (EP), Helen Read (HR), Paul Richards (JPR), Duncan Sivell (DS), Josh Jenkins-Shaw (JJS), Mark Telfer (MT).

Site code	Location	Grid reference	VC	Date(s)	Recorder(s)
1	The Moor, Hawkhurst	TQ7529	15	16.iv.2011	MT
2	Collingwood, Hawkhurst	TQ7629	15	16.iv.2011	RDK, JPR, MT
3	The Gill, Goudhurst	TQ7238	16	16.iv.2011	RDK, JPR, MT
4	Wilden Wood (Widehurst Wood)	TQ7541	16	18.iv.2011	PL, HR
5	Wilden Wood (Widehurst Wood)	TQ7542	16	18.iv.2011	SJG
6	Snoad Wood (Widehurst Wood) (Fig. 3)	TQ7641	16	18.iv.2011	SJG, PL, HR
7	Darnold Wood / Brick Kiln Wood	TQ7648	15	16.iv.2011	HR
8	Darnold Wood / Brick Kiln Wood	TQ7649	15	16.iv.2011	MD, JF
9	Quarry Wood, West Farleigh	TQ7152	15	18.iv.2011	SJG, PL, HR
10	Honeyhills Wood	TQ7956	15	16.iv.2011	MD, JF
11	Honeyhills Wood	TQ8056	15	16.iv.2011	HR
12	Burham Down	TQ7362	15	16.iv.2011	MD, JF, HR
13	Westfield Wood	TQ7560	15	16.iv.2011	MD, JF, HR
14	Flatropers Wd, Peasmarsh	TQ8623	14	16.iv.2011	SJG, PL
15	Potman's Heath	TQ8728	15	16.iv.2011	JPR, MT
16	College Wood, Wittersham	TQ8926	15	--.iv.2011	RDK
17	Moor Wood, Iden Green	TQ8031	15	18.iv.2011	SJG, PL, HR
18	Wattle Wood, Tenterden	TQ8735	15	16.iv.2011	SJG, PL
19	Dering Wood (West)	TQ8944	15	15.iv.2011	KA, LJ, AL
20	Smokes Wood, Hucking Estate	TQ8457	15	16.iv.2011	TB, KC
21	Kiln Wood, Lenham	TQ8851	15	16.iv.2011	TB, KC
22	Motney Hill, Rainham	TQ8267	15	17.iv.2011	JPR
23	Stockbury Hill Wood	TQ8360	15	16.iv.2011	TB, KC
24	Queendown Warren	TQ8363	15	16.iv.2011	TB, KC
25	Orchard Wood	TQ9026	15	16.iv.2011	JPR
26	Luckhurst Wood	TQ9327	15	15.iv.2011	KA, LJ, AL
27	Ash Wood	TQ9328	15	15.iv.2011	KA, LJ, AL
28	Stone Wood, Shadoxhurst	TQ9636	15	15.iv.2011	KA, LJ, AL
29	Kingsland Wd, Shadoxhurst	TQ9637	15	15.iv.2011	KA, LJ, AL
30	Longrope Wood	TQ9835	15	15.iv.2011	KA, LJ, AL
31	Dering Wood (East)	TQ9044	15	15.iv.2011	KA, LJ, AL
32	Hothfield Heathlands	TQ9645	15	15.iv.2011	PL
33	Hothfield Heathlands	TQ9745	15	15.iv.2011	PL
34	Ashford Warren (West)	TQ9944	15	15.iv.2011	SJG
35	Wichling Wood, Torry Hill Estate	TQ9155	15	15.iv.2011	PL

36	Kennelling Wood	TQ9551	15	16.iv.2011	SJG
37	Spuckles Wood, Stalisfield Green	TQ9552	15	16.iv.2011	PL
38	Denge Wood, Garlinge Green	TQ9952	15	15.iv.2011	RDK
39	Cromers Wood, Sittingbourne	TQ9060	15	15.iv.2011	TB
40	Packing Wood, Hamstreet	TR0035	15	16.iv.2011	EP
41	Stockshill & Blackthorn Woods, Aldington	TR0635	15	16.iv.2011	KA, LJ, AL
42	Ashford Warren (East) (Fig. 4)	TR0044	15	15.iv.2011	MD, HR
43	Soakham Downs, King's Wood	TR0249	15	15.iv.2011	MD, SJG, HR
44	Wye Downs NNR	TR0745	15	15.iv.2011	MD, SJG, HR
45	Park Wood, Chilham	TR0452	15	15.iv.2011	EP
46	Boughton Street	TR0759	15	14.iv.2011	SJG, HR
47	Broadham Down, Chilham	TR0852	15	15.iv.2011	DS
48	Julliberie Down, Chilham	TR0853	15	15.iv.2011	DS
49	Denstead Wood	TR0857	15	15.iv.2011	EP
50	South Blean Woods, Dunkirk	TR0858	15	17.iv.2011	JPR
51	Denge Wood, Garlinge Green	TR0952	15	15.iv.2011	JPR
52	Denstead Wood	TR0956	15	15.iv.2011	PN
53	Victory Wood / Blean Wood	TR0860	15	14.iv.2011	SJG, HR
54	Victory Wood, Dargate	TR0861	15	15.iv.2011	SSG, KH, DS
55	N. Bishopden Wood, Blean Woods NNR	TR0960	15	15.iv.2011	TB
56	Folks Wood, Lympne	TR1335	15	16.iv.2011	KA, LJ, AL
57	Brockhill Country Park, Pedlinge	TR1435	15	16.iv.2011	KA, LJ, AL
58	Spong Wood	TR1245	15	15.iv.2011	KC, PL
59	Yockletts Bank	TR1247	15	16.iv.2011	EP
60	Elham Park Wood	TR1545	15	15.iv.2011	RDK, JPR
61	Denge Wood, Garlinge Green	TR1052	15	15.iv.2011	JF, JPR
62	Thanington roadside	TR1256	15	15.iv.2011	EP
63	Church Wood, Rough Common	TR1259	15	15.iv.2011	PN, EP
64	University of Kent, Canterbury	TR1459	15	15.iv.2011	SJG
65	Denstroude	TR1061	15	15.iv.2011	DS
66	Thornden Wood	TR1463	15	14.iv.2011	PL
67	East Blean Wood NNR	TR1964	15	14.iv.2011	PL
68	Sladden Woods	TR2542	15	15.iv.2011	JF, RDK, JPR
69	Pitt Wood, Addisham	TR2252	15	15.iv.2011	JF, RDK, JPR
70	Bishopstone Glen, Herne Bay	TR2068	15	16.iv.2011	EP
71	Stodmarsh NNR	TR2260	15	15.iv.2011	JF, RDK, JPR
Medway Valley sites for *Metaiulus pratensis* survey					
72	Yalding Fen	TQ6849	16	17.iv.2011	KA, SJG, PL, HR
73	Golden Green	TQ6242	16	19.iv.2011	SJG
74	Holborough Marshes, Snodland	TQ7062	16	19.iv.2011	SJG, PL
75	Abbey Mead Lakes, Snodland	TQ7161	15	17.iv.2011	SJG, PL

The only standardised recording was that carried out for *Polyzonium germanicum* (Fig. 1). The ecological data collected are to be reported in a separate paper, however, the intensive recording effort involved the collection of data from 92 samples across 51 sites. The millipede was found in 22 of these samples at 17 sites in 16 different 10km squares across much of East Kent (VC15). An apparent decline in the range of *P. germanicum* was what had led to it being listed as a UK BAP priority species in 2007 and subsequently as a s41 species and was the reason it was one of the target species for the meeting.

The records from the meeting suggest that this apparent decline was an artefact probably caused by a reduction in recording effort. *P. germanicum* was first recorded at Wye in 1919 (Brade-Birks, 1920a) but not from elsewhere in Kent until 1950. Even as recently as 1960 the millipede was known from just four hectads. Then over the next three decades the number of records of the species went up by more than 500% and the known distribution expanded to 12 hectads, presumably in part due to the establishment of the Millipede Recording Scheme in 1970 but also due to a succession of active recorders working in the county; E.G. Philp throughout the period, A.D. Barber and R.D. Kime in the 1960s and 1970s, K.C. Side in the 1970s and P. Lee and A.J. Rundle in the 1980s. There were no further records submitted to the recording scheme after 1989 most likely because the county was assumed to have been well recorded and effort was focussed elsewhere.

Not only is there no evidence of a decline as *P. germanicum* survives throughout its known historical range but the records from the meeting extended its known distribution both eastwards and westwards. There are few suitable sites further east but it may still occur unnoticed in other areas to the west of the county.

FIGURE 1: ***Polyzonium germanicum*** **was frequently recorded**
(image © Paul Richards)

The apparent widespread distribution of *Metaiulus pratensis* in Kent at the time of its description (Blower & Rolfe, 1956) appears to have been followed by a gradual decline until it was last seen in the Medway valley near Maidstone in 1988. This is a very rare animal in Europe and combined with the apparent decline, even fear it may have gone extinct in the UK, led to its designation as a UK BAP priority species in 2007 and subsequently as a s41 species. Although the rediscovery of *M. pratensis* had been hoped for when planning the meeting it was a surprise to find it in large numbers at Yalding Fen (Fig. 2), the first site visited specifically to search for the species. This success led those who found the species (S.J. Gregory, P. Lee and H.J. Read) to believe they understood its

habitat requirements but they could not locate it at any of the other sites visited, even Holborough Marshes which appeared very suitable. There is a need for further work, not just a new survey for *M. pratensis* but also a study of the ecology of the Yalding Fen population.

FIGURE 2: *Metaiulus pratensis* was found in good numbers at Yalding Fen
(image © Paul Richards)

In addition to the work on *P. germanicum* and *M. pratensis*, four Nationally Scarce species, *Brachychaeteuma melanops, Stosatea italica, Leptoiulus kervillei* and *Allajulus nitidus*, were recorded. Both *L. kervillei* and *S. italica* were originally reported in the UK from Kent and the county is still the stronghold for *S. italica*. Therefore it was surprising that during the BMIG meeting it was reported only from the University campus where we were based in Canterbury. However, many past records of the species were from disturbed or synanthropic sites which were not the main focus of the collections at the meeting and in addition it seems to be intermittent in its occurrence at known sites (almost always from calcareous soils which drain rapidly).

FIGURE 3: Snoad Wood (site 6), Steve Gregory collating field notes (image © Helen Read)

Table 2: List of millipede species recorded by location (details in Table 1) during BMIG meeting in Kent in April 2011

MILLIPEDES																									
Location	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**
Glomeris marginata	●	●	●	●		●	●	●	●	●	●	●	●	●			●	●	●	●			●	●	●
Polyzonium germanicum		●	●			●													●		●				
Brachychaeteuma melanops									●																
Brachydesmus superus															●										●
Polydesmus angustus			●							●			●					●							●
Polydesmus coriaceus			●			●			●																●
Ophyiulus pilosus			●															●							
Leptoiulus kervillei																		●							
Cylindroiulus caeruleocinctus																						●	●	●	
Cylindroiulus punctatus			●	●	●	●	●	●		●			●	●		●	●	●	●	●	●		●	●	
Brachyiulus pusillus															●										
Tachypodoiulus niger			●			●		●	●	●			●	●			●		●	●	●	●		●	
Location	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**
Glomeris marginata	●	●	●		●	●			●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●
Polyzonium germanicum					●				●								●				●	●			
Chordeuma proximum									●																
Melogona scutellaris											●														
Brachydesmus superus	●												●												
Polydesmus angustus				●					●				●	●											
Polydesmus denticulatus									●	●															
Proteroiulus fuscus																		●							
Julus scandinavius			●				●																		
Ophyiulus pilosus													●					●							
Leptoiulus kervillei											●						●		●						
Allajulus nitidus															●										

Location (cont.)	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Cylindroiulus londinensis									●								●		●						
Cylindroiulus punctatus			●	●			●		●	●	●		●	●	●	●	●	●	●		●			●	
Tachypodoiulus niger			●	●	●	●			●	●			●			●	●	●	●		●				
Location	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**
Glomeris marginata		●	●			●	●	●	●	●	●		●		●	●	●	●	●						
Polyzonium germanicum				●	●	●		●					●		●	●			●		●				
Brachychaeteuma melanops																							●		
Melogona scutellaris																			●						
Stosatea italica														●											
Brachydesmus superus						●				●								●				●	●	●	●
Polydesmus angustus			●		●		●				●		●			●		●	●			●		●	
Polydesmus coriaceus															●				●			●	●		●
Polydesmus inconstans																						●			
Macrosternodesmus palicola																		●							
Ophiodesmus albonanus																		●							
Proteroiulus fuscus						●									●						●				
Blaniulus guttulatus																								●	
Julus scandinavius																●									
Ophyiulus pilosus	●		●						●									●	●	●				●	
Leptoiulus kervillei						●																			
Metaiulus pratensis																						●			
Allajulus nitidus										●	●														
Cylindroiulus britannicus																					●	●			
Cylindroiulus caeruleocinctus																								●	
Cylindroiulus londinensis												●													
Cylindroiulus punctatus		●	●		●	●		●		●			●			●		●				●			
Brachyiulus pusillus																						●		●	●
Tachypodoiulus niger			●				●	●	●			●		●				●	●			●			

Table 3: List of centipede species recorded by location (details in Table 1) during BMIG meeting in Kent in April 2011

CENTIPEDES																									
Location	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**
Strigamia acuminata								●	●				●	●											
Strigamia crassipes													●							●				●	
Strigamia maritima																						●			
Schendyla nemorensis		●																		●					
Geophilus easoni			●		●	●											●				●				
Geophilus flavus					●	●		●	●	●		●		●							●		●	●	
Geophilus truncorum					●	●			●	●			●	●			●	●		●				●	
Henia brevis												●													
Cryptops hortensis		●							●					●			●	●							
Lithobius curtipes					●																				
Lithobius forficatus		●	●		●			●	●	●		●	●	●	●		●	●			●		●	●	
Lithobius macilentus																	●								
Lithobius microps				●																	●				
Lithobius muticus			●			●		●						●			●								
Lithobius variegatus				●	●	●		●	●	●	●		●	●			●	●	●	●	●		●	●	●
Location	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**
Strigamia crassipes									●		●	●													
Schendyla nemorensis				●	●													●	●		●				
Haplophilus subterraneus								●													●				
Geophilus easoni					●				●							●					●				
Geophilus flavus					●				●	●	●			●				●	●		●				
Geophilus truncorum									●		●	●		●				●			●				

Location (cont.)	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Cryptops hortensis									●					●				●			●			●	
Cryptops anomalans															●										
Lithobius borealis										●															
Lithobius curtipes				●																					
Lithobius forficatus									●					●		●	●	●	●		●	●		●	
Lithobius macilentus		●																							
Lithobius microps												●							●						●
Lithobius muticus											●							●							
Lithobius variegatus			●	●	●	●		●	●		●	●	●	●		●	●	●	●	●	●	●			●
Location	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**
Strigamia acuminata																		●							
Schendyla nemorensis			●		●																				
Haplophilus subterraneus												●													
Geophilus easoni			●		●					●						●									
Geophilus flavus			●		●	●							●		●		●		●			●	●	●	●
Geophilus truncorum			●		●												●							●	
Cryptops hortensis			●			●									●		●								
Cryptops anomalans														●											
Lithobius calcaratus																	●								
Lithobius crassipes																●									
Lithobius curtipes															●										
Lithobius forficatus			●		●							●	●	●	●			●	●			●	●	●	
Lithobius microps					●			●							●	●								●	
Lithobius muticus			●																						
Lithobius variegatus			●		●	●		●		●	●	●		●	●	●									

Table 4: List of woodlice species recorded by location (details in Table 1) during BMIG meeting in Kent in April 2011

WOODLICE																									
Location	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**
Ligidium hypnorum		●	●		●	●			●	●				●				●							
Haplophthalmus danicus		●							●									●							
Haplophthalmus mengei ss																		●							
Trichoniscus pusillus agg.		●	●	●	●	●	●	●	●	●	●	●	●	●			●	●	●	●	●		●	●	●
Trichoniscus pygmaeus									●																
Philoscia muscorum	●	●			●	●	●	●	●			●	●	●			●	●	●	●	●		●	●	●
Oniscus asellus			●		●	●	●	●	●	●		●	●	●			●	●	●	●	●		●		
Armadillidium nasatum																						●			
Armadillidium vulgare	●									●		●	●									●	●	●	●
Eluma caelata															●							●			
Porcellio dilatatus	●																								
Porcellio scaber	●	●			●	●			●			●		●			●	●	●	●	●		●	●	
Trachelipus rathkii															●										
Location	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**
Ligidium hypnorum									●		●				●			●						●	
Haplophthalmus danicus									●		●								●						
Trichoniscus pusillus agg.	●	●	●	●	●	●			●	●	●	●			●	●	●	●	●	●	●				●
Philoscia muscorum	●	●	●	●	●	●			●	●	●	●			●	●	●	●	●		●	●		●	●
Oniscus asellus	●	●	●	●		●		●	●		●	●				●	●	●	●	●	●	●		●	●
Armadillidium vulgare		●			●						●					●			●	●		●		●	●
Porcellio scaber	●	●			●	●			●	●	●	●				●	●	●	●	●	●	●		●	

Location	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ligidium hypnorum	●		●							●	●			●				●		●			●	●	
Androniscus dentiger																									●
Haplophthalmus danicus														●				●				●			●
Metatrichoniscoides leygidii																									●
Trichoniscus pusillus agg.			●			●		●	●		●		●	●	●	●	●	●				●	●	●	●
Trichoniscus pygmaeus																									●
Trichoniscoides albidus																						●			
Trichoniscoides sarsi																									●
Philoscia muscorum	●		●			●		●	●	●	●		●	●	●	●	●	●	●	●		●	●	●	●
Oniscus asellus	●		●			●		●	●	●		●	●	●		●	●					●	●	●	●
Platyarthrus hoffmannseggii																								●	
Armadillidium nasatum																									●
Armadillidium vulgare									●		●			●	●					●		●	●	●	●
Eluma caelata				●																					
Porcellio scaber			●			●	●	●	●		●	●	●	●	●		●					●	●	●	●
Trachelipus rathkii																						●		●	

CENTIPEDES

The centipedes recorded from each of the sites visited are shown in Table 3. Although centipede recording was not one of the principal aims of the meeting, a number of interesting observations were made.

In total 20 species were reported from the meeting, four of which have the status of Nationally Scarce. Both *Henia brevis,* the only geophilomorph in this group, and *Lithobius macilentus* were reported from East Kent (VC 15), the former from only a single location at Burham Down and the latter from Moor Wood and Ash Wood. *L. muticus* was more widespread with records from East Kent (Brick Kiln Wood, Wattle Wood, Kennelling Wood, Soakham Downs, Blean Woods) and West Kent (The Gill, Snoad Wood) as well as East Sussex (Flatropers Wood). The final member of this group, *L. curtipes*, was also widespread with records from woodlands in East Kent (Kingsland Wood, Denstroude) and West Kent (Widehurst Wood) and more frequent than *L. crassipes,* the common small, woodland species in much of Britain but only recorded from Thornden Wood in NE Kent during the meeting. It does seem that, although, in terms of identification, these two species can sometimes be difficult to separate, their ecology is probably somewhat different (see, for instance, Roberts, 1956, Vaitilingham, 1960, Barber & Keay, 1988).

The first outdoor record of *L. lapidicola*, a Nationally Rare species, in the UK was from the seaward edge of the golf links at Sandwich Bay but the site was not revisited and the species was not seen during the meeting. Very surprisingly, *L. melanops* generally a common species and another first recorded in the UK from Kent, was not seen at any of the sites during meeting but it does tend to be a species of gardens, disturbed and synanthopic sites and the coast. A number of other species previously recorded from Kent were not found during this survey; *Geophilus osquidatum*, *Geophilus carpophagus s.s.*, *Geophilus electricus*, *Geophilus alpinus*, *Stenotaenia linearis*, *Cryptops parisi*, *Lamyctes emarginatus* and *Lithobius pilicornis* many of which have distinctly synanthopic tendencies. Others, referred to above, are *Lithobius lapidicola*, *Lithobius peregrinus* and *Geophilus fucorum seurati* (*L. peregrinus* is probably now extinct in its one urban site). The house centipede, *Scutigera coleoptrata*, has also been found more than once in the county.

FIGURE 4: Lunch at Ashford Warren (site 42). Left to right, Ken Hill, Jim Flanagan and Mike Davidson (image © Helen Read)

WOODLICE

A total of 18 species of woodlice were recorded from 67 sites during the meeting. The woodlice recorded from each site are shown in Table 4.

The ubiquitous woodlice *Trichoniscus pusillus* agg., *Philoscia muscorum*, *Oniscus asellus* and *Porcellio scaber*, not unexpectedly, were seen in good numbers at most sites. The only other frequently recorded species were *Armadillidium vulgare* (26 sites), *Ligidium hypnorum* (22 sites) and *Haplophthalmus danicus* (10 sites). *L. hypnorum* proved to be quite widespread not only within woodland, but also on shady river-side meadows, a reflection of the relative abundance of this 'continental' species in south-eastern England (Gregory, 2009).

The remaining species were recorded from between one and three sites. These were not just the more uncommon British woodlice as one might expect, but also some widespread and common species, such as Rosy Woodlouse *Androniscus dentiger* and Ant Woodlouse *Platyarthrus hoffmannseggii* (both recorded from single sites). This is perhaps due to the fact that recording of woodlice was not one of the principal aims of the meeting. None-the-less a number of interesting observations were made. The Nationally Scarce *Eluma caelata* was recorded from three sites and Kent remains the British stronghold for this species. Another species with a south-eastern bias in Britain, *Trachelipus rathkii*, was found at three sites in the Medway Valley and the Rother Levels. Also of interest is the discovery (by MT) of *Porcellio dilatatus* on waste ground under brick beside a shed in the village of The Moor. Although likely to be considerably under-recorded in Britain due to its penchant for 'unsavoury' manure heaps, it may occasionally be found in gardens, compost heaps, etc (Gregory, 2009).

The discovery of the small pallid trichoniscid woodlouse *Metatrichoniscoides leydigii* at Abbey Mead Lakes near Snodland is very significant, not only because it was the first time the species had been found in Kent. This species was first recorded in Britain in 1989 from among compost-rich gravel and rubble at a garden centre in Oxford (Gregory, 2009) and was almost certainly unintentionally introduced to this site (e.g. via plant material). One of us (SJG) collected a single male *M. leydigii* from the underside of a piece of concrete embedded into peaty soil on the edge of a reedbed bordering the River Medway (Gregory, 2012).

It is also very significant that two specimens of *Trichoniscoides sarsi* were collected nearby from beneath stones below strandline debris on the banks of the Medway. In Britain, *T. sarsi* is generally associated with synanthropic sites, such as old gardens or churchyards, (Gregory, 2009) and it is widely perceived to be a well-established non-native. However, in the Netherlands, where both species are native, *T. sarsi* is a frequent associate of *M. leydigii* (Berg *et al.*, 2008) and the Medway site is very similar in nature to the native habitat described for both species in the Netherlands. It is plausible that the Medway site supports a native population of both species, rather than a recent human-aided introduction. If this is so then *M. leydigii* should be considered Nationally Rare in the UK and *T. sarsi* should be Nationally Scarce.

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