FIELD MEETING REPORTS

A REPORT ON THE BRITISH MYRIAPOD AND ISOPOD GROUP VISIT TO SWANSEA, 27-30th MARCH 2008

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The origins of this visit followed on from a discussion that I had the previous year with Mark Winder. Mark (with whom I was a Planning Ecologist with the City and County of Swansea), already had an interest in spiders and, given the potential of making good records in an area that ranged from urban habitats, brownfield sites and parks to maritime cliffs and saltmarsh, we volunteered to help organise the 2008 event. As I had (by Spring 2008) left employment with CCS, Mark arranged the logistics of the visit such as accommodation, whilst I helped with the choice of sites and the itinerary. I would like to thank Mark at this late stage for all his help and also to apologise for the lateness of this account. The participants visited some nine 10km squares in the Swansea area (vc41, Glamorgan) and in the extreme south-east of Carmarthenshire (vc44).

It is my view that Swansea, including the adjacent peninsula of Gower and nearby towns, has much to offer for the recording of myriapods and woodlice, as well as other invertebrate groups. The general area is not well recorded, though Gordon Blower visited Gower on more than occasion and carried out valuable detailed studies with his students at several locations (see Blower, 1989). I also, when I was actively recording in the late 1980's, carried out some investigation of the fauna on Swansea's periphery at Loughor and occasionally on north Gower (Morgan, 1988). It might be of interest to readers that Caswell Bay was one of the three sites from where *Geophilus osquidatum* was first recorded in Britain and the second British record of *Chordeuma proximum* also came from Gower (Blower, 1961).

There is a wealth of habitat suitable for synanthropic species, with substantial areas of derelict land, urban-fringe habitats and gardens. The extensive gardens at Clyne (near Mumbles) and Singleton Park (near the University) both offer opportunities to record accidental introductions that would have come with exotic plants. There are heated greenhouses at Singleton where I had previously recorded, then new to Wales, *Oxidus gracilis* in 1985. This location was revisited during the March 2008 BMIG meeting. Gower, with its winter-mild, south-facing limestone cliffs and reddish 'rendzina' soils had already yielded exciting records for Gordon Blower (e.g. *Geoglomeris subterranea*) but its general diversity of habitats (limestone cliffs, saltmarshes, arable, acidic soils to the north etc) and its position facing the ameliorative influences of the Gulf Stream all suggest a potentially rich fauna. The area, like other parts of coastal south-west Wales shows a similar climatic profile to Devon and Cornwall and the maritime fringes of Eire.

Although there were some visits made by the BMIG group during the 2008 meeting to the south Gower coast, it is my view that more intensive future recording may yield additional significant records. Certainly, Tony Barber draws attention to the fact that approaching half of the British 'outdoor' centipede fauna were recorded during the BMIG visit, with some 25 species found, and he remarks that the general South Wales area has a species richness comparable to the well-worked south-west of England. Of the remaining unrecorded British outdoor species, these tend to be rare, small or more or less restricted in their distribution such as *Stenotaenia linearis*, another synanthropic species which is commonest in the London area but which has been recorded in Devon (A. Barber, pers. comm.). It also may be worth mentioning that, very soon after having a little success in finding the Devonian speciality *Chalandea pinguis* on the 1988 BMIG meeting in North Devon, I enthusiastically went looking for this centipede in suitable habitat in coastal south-west Wales, but to no avail. There are other species that Tony suggests could additionally occur, such as the supra-littoral rock crevice specialist *Hydroschendyla submarina*.

Coalfield edge towns such as Neath and Port Talbot or settlements further up the valleys were mostly not visited due to a limited timetable. Coastal Neath and Port Talbot (the latter astride an extensive dune system) will also have their share of species but the smaller, inland Coalfield towns are likely to have a more

impoverished 'acidic ground fauna', though perhaps enlivened in places by synanthropes. Visits were, however, made by some of the group (the participants split up to cover more ground) to Pontardawe and the Clydach area in the Swansea Valley. The Pontardawe locality (Coed Cefnllan-isaf) yielded *Chordeuma proximum* a species that, in my experience, is primarily one that can be found quite commonly in rather acidic conditions (such as oak wood leaf litter) from autumn to spring. As noted above, Gordon Blower had the second British record (back in 1967) from Bishop's Wood, Caswell Bay on Gower. This locality in recent years has been over-run by the 'landhopper' *Arcitalitrus dorrieni* (though it has declined markedly recently, B. Stewart, pers. comm.), and it would be interesting to ascertain whether relative densities of potential competitors such as *C. proximum* have been affected by this incomer, which is now quickly colonising the area (with records from Llanelli (vc 44) and Swansea and Neath in vc41. *Arcitalitrus* has certainly survived the severe 2010-11 winter at the Llanelli site. Movement of potted garden plants is undoubtedly one way it is spread.

One of the first sites visited by the group was a lane behind Eaton Terrace in Swansea, where quite affluent properties with large gardens back onto a rather untidy lane and less prosperous properties now used as student bed-sits. This creates that admixture of semi-natural habitat and squalor so beloved by certain adventive invertebrates. Previous searching of this lane by myself had revealed a thriving population of the blind millipede *Cylindroiulus vulnerarius*, with its distinctive contrasting pale head and lack of ocelli. The group rapidly refound this species under stones, wood etc with a rich humic layer and their expertise also led to the finding of all three species of British *Cryptops* (*C. anomalans* being new to me). In all, nine species of centipede were recorded here. This locality additionally yielded the woodlice *Trichoniscus provisorius* and the mortared wall-loving *Porcellio spinicornis*.

The first Welsh record of *Cylindroiulus vulnerarius* was also from Swansea, by Gordon Blower in 1979, when it was found in the `Azalea beds` in the park/Botanic Garden behind Swansea University, and it gratifying to note that the 2008 meeting re-recorded it at or very near the same site. Another record of this millipede made by BMIG was at Limeslade Bay, Mumbles - perhaps suggesting a wider distribution in and around Swansea, though it is seemingly very localised in Wales. The centipedes *Henia brevis* and *Lithobius calcaratus* were recorded in the Mumbles area and *Geophilus electricus* at Caswell Bay.

Another local *Cylindroiulus* was found in the botanic garden at Singleton Park (and the nearby University Preseli Hall of Residence), *C. caeruleocinctus*, and the similarly very localised and large *C. londinensis* was recorded at Caswell Bay. Both are, once again, very scarce and localised in south-west Wales (I only had these species at one site each during intensive recording in the late 1980s).

Perhaps predictably, the heated 'tropical' greenhouses at Singleton Park yielded records of note: the millipede *Oxidus gracilis* was refound, the centipede *Geophilus osquidatum*, the woodlice *T. provisorius* and (perhaps best of all) the alien *Cordioniscus stebbingi*, the latter a tiny (>3mm) species found elsewhere in the UK within glasshouses (Gregory, 2009). A *Cryptops* that I had collected was passed on (with some other centipedes) to Tony Barber who, noticing some unusual features, in turn forwarded it to John Lewis, which he pronounced as *Cryptops* cf. *hispanus*, full details of which are given elsewhere in this *Bulletin* (pg. 39).

On the other side of Swansea, we visited a site nowadays known as Pluck Lake (due to the presence of a water body of that name), an area once notorious as it was covered by copper slag and other industrial waste. The Lower Swansea Valley was once known as 'Copperopolis' due the dominance of that industry and the area was heavily polluted with the 'copper smoke' from smelting killing off vegetation (see Balchin, 1971). Over the years, much this area has been reclaimed for development or become tree-covered by deliberate planting or natural colonisation. It was here that the small *Choneiulus palmatus* was found in similar habitat to an old record of mine just across the county boundary at Bynea, Carmarthenshire (it was also seen at the University gardens at Singleton Park). The millipede *Craspedosoma rawlinsii* was also seen at Pluck Lake; in my experience it prefers rather saturated conditions, including woodland flushes.

En route to meet the group on the second field day, I was fortunate to find when, quickly searching some spring-tide detritus near Old Castle (North Dock) Llanelli, a solitary *Buddelundiella cataractae* (a woodlouse that I had sought unsuccessfully with vigour in my active episode of recording in the late 1980s). However,

Steve Gregory *et al* had 'pipped me at the post' by finding four specimens of this species at Bracelet Bay on Gower the previous day!

TABLE 1: List of sites from which isopod and myriapod records were made.

Records made by: TB Tony Barber; MBD Michael Davidson; SJG Steve Gregory; JH John Harper; PL Paul Lee; IKM Ian Morgan; ECP Eric Philp; HR Helen Read; JPR Paul Richards.

| | Tim Morgan, ECF Enc Finip, | | I | | |
|-------------|-------------------------------|------------|----|-------------|------------------------------|
| Site No. | Locality | Grid Ref. | VC | Date | Recorders |
| 1 | Swansea, Eaton Terrace | SS 642 926 | 41 | 28/iii/2008 | TB,JPR,JH,IKM,ECP,SJG,MBD,PL |
| 2 | Swansea, Pluck Lake | SS 669 955 | 41 | 28/iii/2008 | TB,JPR,PL,ECP,SJG,MBD |
| 3a | Llanelli, Road | SS 548 985 | 44 | 29/iii/2008 | HR,JH,PL,MBD,JPR,IKM,ECP |
| 3b | Bynea, Llanelli | SS 544 988 | 44 | 28/iii/2008 | JH |
| 3c | Bynea, Llanelli | SS 543 987 | 44 | 27/vi/2007 | JH |
| 4 | Penrhyngwyn | SS 517 974 | 44 | 29/iii/2008 | TB,HR,JH,JPR,IKM,PL |
| 5 | Penclawdd, Marsh | SS 54 95 | 41 | 28/iii/2008 | TB |
| 6 | Crofty, Marsh | SS 52 95 | 41 | 28/iii/2008 | TB |
| 7 | Landimore, Marsh | SS 46 93 | 41 | 28/iii/2008 | TB,PL |
| 8 | Bishopton Valley, Wood | SS 57 88 | 41 | 29/iii/2008 | TB,PL,MBD |
| 10 | Oxwich, Rocky Shore & NNR | SS 503 852 | 41 | 29/iii/2008 | TB,PL |
| 11 | Oxwich Churchyard | SS 504 851 | 41 | 29/iii/2008 | TB,PL |
| 12 | Craig Cefn, Clydach | SN 684 026 | 41 | 28/iii/2008 | JPR |
| 13 | Coed Cefnllan Isaf, Pontadawe | SN 719 049 | 41 | 28/iii/2008 | JPR |
| 14a | Botanic Gardens, Swansea | SS 628 924 | 41 | 29/iii/2008 | MBD,JPR,ECP |
| 14b | Singleton Park, Conifer | SS 629 921 | 41 | 29/iii/2008 | JPR |
| 14c | University Preseli Hall area | SS627 920 | 41 | 27/iii/2008 | JPR |
| 15a | Singleton, Park, Rhododendron | SS 631 922 | 41 | 29/iii/2008 | JPR |
| 15b | University Gardens | SS 630 920 | 41 | 29/iii/2008 | SJG |
| 15c | Oystermouth Castle | SS 613 884 | 41 | 28/iii/2008 | JPR |
| 16 | Botanic Gardens, Hot House | SS 628 924 | 41 | 29/iii/2008 | ECP,JPR |
| 17 | Clase, Swansea, Roadside | SS 654 979 | 41 | 29/iii/2008 | JPR |
| 18 | WWT Grounds | SS 530 917 | 44 | 24/i/2008 | JH, |
| 19 | Llangyfelach, Church | SS 647 990 | 41 | 28/iii/2008 | IKM, |
| 20 | Bishops Wood, Caswell | SS 594 879 | 41 | 28/iii/2008 | PL,MBD |
| 21 | Caswell Bay | SS 592 876 | 41 | 28/iii/2008 | SJG |
| 22 | Mumbles Hill | SS 629 873 | 41 | 28/iii/2008 | SJG,PL |
| 23 | Bracelet Bay | SS630 872 | 41 | 28/iii/2008 | SJG |
| 24 | Mumbles Head | SS 633 872 | 41 | 28/iii/2008 | SJG,MBD,PL |
| 25 | Pwll Du Bay | SS 574 872 | 41 | 27/iii/2008 | MBD |
| 26 | Limeslade | SS 626 870 | 41 | 27/iii/2009 | MBD |
| 27 | North Dock, Llanelli | SS 499 997 | 44 | 29/iii/2008 | IKM |
| 28 | Burry Port , Harbour | SN 455 005 | 44 | 30/iii/2008 | IKM |
| 29 | Pembrey harbour | SN436 002 | 44 | 30/iii/2008 | IKM |
| 30 | Pembrey Burrows | SS 412 992 | 44 | 30/iii/2008 | IKM |
| 31 | Cefn Sidan beach | SN 396 004 | 44 | 30/iii/2008 | IKM |
| 32 | North of Horeb | SN 496 061 | 44 | 30/iii/2008 | IKM |
| 33 | Llyn Llech Owain | SN 571 152 | 44 | 31/iii/2008 | IKM |
| 34 | Kenfig NNR | SS 654 979 | 41 | 30/iii/2008 | JPR |

TABLE 2: Centipedes recorded (for locality details see Table 1)

| Site No. | 1 | 2 | 3a | 3b | 4 3c | 5 | 6 | 7 | 8 | 10 | 11 | 12 | 14a 13 | 14b 14a | 15a 14b | 15b | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 24 | 25 | 26 | 28 27 | 33 |
|----------------------------|---|--------|--------|-----|---------|-----|---|---|---|----|----|----|-----------|------------|------------|-----|----|----|----|----|----|----|----|----|----|-----|----------|----|
| Stigmatogaster subterranea | # | # | # | | # | # | | # | # | | | | | | # | # | 4: | | | | | # | | # | # | # | | |
| Schendyla nemorensis | # | # | # | | # | ۵. | # | # | | | # | | | | | | | | | | | # | | # | | | | |
| Schendyla dentata | | | # | | | | | | | | | | | | | | | | | | | | | | | | | |
| Strigamia crassipes | | # | # | | | | | | | | | | | | | | | | | | | | | | | | | |
| Strigamia maritima | | | | | # | ; | | | | # | | | | | | | | | | | | # | | # | | | | |
| Henia vesuviana | | | # | | | | | | | | | | | | | | | | | | | | | | | | | |
| Henia brevis | | | | | | | | | | | | | | | | | | | | | | | | | | # | | |
| Geophilus insculptus | # | | | | | | | # | # | | | | # | | # | 7 | | | | | | | | | | | | |
| Geophilus gracilis | | | | | | | # | | | | | | | | | | | | | | | | | | | | | |
| Geophilus flavus | | # | # | # # | # | | | | | | | | | | | | | | | | | | | | | | | |
| Geophilus truncorum | | # | # | | | | | | # | | | # | | # | # | | | | | | | # | | | | | | |
| Geophilus osquidatum | | | | | | | | | | | | | # | # | | | | | | | | | | | | | | |
| Geophilus easoni | | | # | # # | # | | | | | | | | | | | | | | | | | | | | | | | |
| Geophilus carpophagus | # | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Geophilus electricus | | | | | | | | | | | | | | | | | | | | | | # | | | | | | |
| Cryptops anomalans | # | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cryptops hortensis | # | # | | # # | # # | j | | | # | | # | | ‡ | # | | # | Ť | # | | # | | | | | | | | |
| Cryptops parisi | # | # | | | | | | | # | | | # | | | | | | | | | # | | | | | | | |
| Lithobius variegatus | | | | # # | # # | 4. | | | # | | | | | | | | | | | # | | | | # | | | | # |
| Lithobius forficatus | # | # | | # # | # # | # ; | | | # | | | # | ‡ | # | | | # | | | | | | | | | Ţ | # # | ŧ |
| Lithobius microps | # | # | # | # # | # # | | | # | | | | | | | | # | 7 | | 8 | | # | | | | • | # # | # | |
| Lithobius melanops | # | | | # # | # | | | | | | | | # | # | | # | 7 | | | | | | # | | | -11 | # # | + |
| Lithobius calcaratus | | | | | | | | | | | | | | | | | | | | | | | | # | | | | |
| Lithobius crassipes | | | # | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lamyctes emarginatus | | \neg | \neg | 7+ | # | | | | | | | | | | | | | | | | | | | | | | | |

TABLE 3: Millipedes recorded (for locality details see Table 1)

| T | | | | | | | | | | ` | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|----|----|----|---|---|---|----------|-----|----|-----|-----|-----|-----|----|----|----|----|----|----|----|----------|----|----|----|----|
| Site No. | 1 | 2 | 3a | 3b | 3c | 4 | 7 | 8 | 11 10 | 12 | 13 | 14a | 14b | 14c | 15c | 16 | 17 | 19 | 20 | 21 | 24 | 25 | 28 26 | 27 | 32 | 33 | 34 |
| Polyxenus lagurus | | | | | | # | | | | | | | | | | | | | | | | | | | | | |
| Glomeris marginata | | | # | | | | | # | | # | # | | | | | | | | # | | # | # | | | # | | # |
| Trachysphaera lobata | | | # | | | | | | | | | | | | | | | | | | | | | | | | |
| Craspedosoma rawlinsii | | # | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nanogona polydesmoides | | | | | | | | # | | | | | | | | | | | | | # | | | | | | |
| Chordeuma proximum | | | | | | | | | | # | # | | | | | | | | | | | | | | | | |
| Melogona gallica | | | | | | | | | | # | | | | | | | # | | | | | | | | | | |
| Melogona scutellaris | | | | | | | | # | | | # | | | | | | | # | | | | | | | | | |
| Brachychaeteuma melanops | # | # | # | | # | | | # | | | | # | | | | | | | | | # | | | | | | |
| Blaniulus guttulatus | # | # | | | | | # | # | | | # | | # | | | | | # | | | | | | | | | |
| Choneiulus palmatus | | # | | | | | | | | | | | | | | # | | | | | | | | | | | |
| Proteroiulus fuscus | | # | | | | | | # | | # | | | # | | | | | | | | | | | | | | |
| Julus scandinavius | | | | | | | | # | | | # | | | | | | | | # | | | # | # | | # | | |
| Ophyiulus pilosus | # | | # | | | | | # | | # | | # | | | | | | | # | | | # | # | | | | # |
| Leptoiulus belgicus | | | # | | | | | | | | | | | | | | | | | | | | | | | | |
| Cylindroiulus caeruleocinctus | | | | | | | | | | | | | | # | | | | | | | | | | | | | |
| Cylindroiulus londinensis | | | | | | | | | | | | # | | | | | | | | # | | | | | | | |
| Cylindroiulus latestriatus | | | | | | # | | # | # | | # | | | | | | | | | | # | | | # | | | # |
| Cylindroiulus punctatus | # | # | | | | | # | # | | # | | | # | | | | | # | | | | # | # # | | # | # | |
| Cylindroiulus vulnerarius | # | | | | | | | | | | | | # | | | # | | | | | | # | # | | | | |
| Cylindroiulus britannicus | # | | # | | # | | | # | | | | # | # | | | # | | | | | | | | | | | |
| Brachyiulus pusillus | | | # | | | | # | | | | | | | | | | | | | # | | | # | | | | # |
| Ommatoiulus sabulosus | | | | | | | | | | | | | | | | | | | | | | | | | ? | | |
| Tachypodoiulus niger | | # | # | | # | # | | # | | # | | # | | # | # | | | # | # | | # | # | # | | | | # |
| Oxidus gracilis | | | | | | | | | | | | # | | | | | | | | | | | | | | | |
| Brachydesmus superus | | | # | | # | | | # | # | # # | | # | | # | # | # | | | | | # | | | | | | |
| Polydesmus angustus | | # | # | | # | | # | # | | # | | # | | | | | | | # | | # | | | | | # | |
| Polydesmus coriaceus | # | | # | | # | | # | | | | # | | | | | | | # | | | | | | | | | |
| Macrosternodesmus palicola | # | | | | | | | | | | | | | | | # | | | | | | | | | | | |
| Ophiodesmus albonanus | # | | # | | | | | # | | | | # | # | | | # | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

The second full day, saw the party assembled at a locality alongside the A484 near Bynea in Carmarthenshire, primarily to see the woodlouse *Oritoniscus flavus* and the millipede *Trachysphaera lobata* (see earlier notes). As noted earlier, John Harper has done much detailed work at this site (Harper, 2010) and we feel that both species may be long-standing introductions at this site, introduced possibly in dumped ship's ballast. Prior to land reclamation and the building of sea defences, the locality was close to a known shipping point for the export of coal to countries that regularly included Ireland and Spain; possible provenances for these invertebrates. Ships' ballast may well have been the vector in the transportation of several myriapod or isopod species to the British Isles that have very limited distributions and I have also

TABLE 4: Woodlice recorded (for locality details see Table 1)

often wondered whether these Welsh *Oritoniscus flavus* are of Irish or Continental stock. Both John and I have looked for *flavus* elsewhere in south-east Carmarthenshire, but except for 'sub-sites' in rather close proximity to its original 1994 discovery, we have failed to find any. It certainly likes waterlogged conditions, being often found near the water table under detritus, though in rainy weather it can be more easily found close to the surface.

Inevitably, as well as seeing the targeted *Oritoniscus* and *Trachysphaera*, the concentration of myriapod and woodlice enthusiasts led to several more records of note; the centipedes *Henia vesuviana* and *Geophilus easoni* (in all 13 species of centipede were recorded here); the woodlice *Trichoniscus provisorus* (new to vc44, Carms.) and *Porcellionoides cingendus* (in wetland habitat). *P. cingendus* was recorded on more typical coastal habitat on Gower and later at Burry Port (though I too have noted it in wet, rank pasture sites in Carmarthenshire previously). John Harper also recorded *Schendyla dentata* at the 'Oritoniscus-*Trachysphaera* site' earlier in February 2008.

32 31 # # 30 # # 29 28 # 27 25 # # # # # 24 23 # # # 22 21 # # # # # # # # # # # # # # 20 19 # # 16 # # # 11 10 # # 8 # # # # # 4 # # # # # # # # # # 3b # # 3a # # # # # 2 # # # # 1 Oniscus asellus intermediate Platyarthrus hoffmannseggii richoniscoides saeroeensis Porcellionoides cingendus Buddelundiella cataractae 4rmadillidium depressum Haplophthalmus danicus richoniscus provisorius Haplophthalmus mengii Cordioniscus stebbingii 4rmadillidium nasatum richoniscus pygmaeus Oniscus asellus asellus 4rmadillidium vulgare richoniscus pusillus 1rmadillidium album Indroniscus dentiger orcellio spinicornis Philoscia muscorum Sylisticus convexus Oritoniscus flavus Oniscus asellus sl Porcellio scaber Ligia oceanica Site No.

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After Bynea, some of us ventured, (in increasing, cold rain!) to the maritime shingle spit at Penrhyngwyn (Machynys, Llanelli), primarily to search for *Thalassisobates littoralis*, which I had seen in previous years under wood and discarded wet fabric etc on the finer, more arenaceous shingle on this ridge. *Geophilus fucorum seurati* was also previously recorded here, back in late September 1990. More recently, a visit by John Harper and myself had resulted in the collection of *S. dentata*. Sadly, the group failed to find these species, though we recorded the woodlice *Trichoniscoides saeroeensis*, and *Cylisticus convexus*, the centipede *Strigamia maritima* and the tiny millipede *Polyxenus lagurus* (all already known from this site). Strangely, *Polyxenus* was not found on Gower in spite of the concentration of BMIG specialists: it would be worth searching on old limestone churches, walls or under a thrift or fescue tuft or rock fissure. *Polyxenus* can be strangely fickle in its appearance as, although it can be found in most weather/conditions/time of year by a determined searcher, it is sometimes easily found but rare or absent on other occasions. I recall one warm, rather humid June afternoon when it literally swarmed over the walls of the old church at St Ishmael (south of Ferryside, vc44), whilst on other occasions I could not find any! The SS5-9- record in the millipede atlas (Lee, 2006) incidentally, refers to the afore-mentioned Penrhyngwyn site and not north Gower. Saltmarsh habitat at Landimore and Crofty provided records of *Geophilus gracilis*, new to Glamorgan.

A list of all localities visited during the BMIG 2008 field meeting is given in Table 1. A summary of the centipede, millipede and woodlice records is given in Tables 2, 3 and 4.

FUTURE RECORDING

Greg Jones (Jones, 2008) with his finding of *Trachelipus rathkii* near Bridgend and John Harper's (e.g. Harper, 2004) exciting discoveries of several significant species have both shown that biogeographically important records remain to be made in South Wales. I have already mentioned the absence of *Polyxenus lagurus* records from the Gower coast (except for an unlocalised record given in Gillham, 1977), but there are also other absent contenders remaining to be refound or discovered, such as possibly *Thalassisobates littoralis* on the natural shingle at Pwll Du Bay (west of Caswell). I am also surprised that the small pill woodlouse *Armadillidium pulchellum* has not yet been recorded on the south Gower cliffs, perhaps in association with ants' nests. Another possibility (this time in urban areas) would be *Nopoiulus kochii* on gritty wasteground. I used to collect this species quite frequently in the late 1980s in such habitat in adjacent south-east Carmarthenshire and it ought to be in similar situations in nearby urban Swansea. Whereas *Buddelundiella cataractae* was located twice, I also have a hope that *Miktoniscus patiencei* will, one day, be found somewhere on the supralittoral.

Are *Oritoniscus flavus* or *Trachysphaera lobata* lurking in the Swansea area, as undiscovered imports from past coal trade days? Were other aliens imported with the vast amounts of copper ore that entered the port? Copper was originally imported from Cornwall, Anglesey and Ireland, but subsequently from as far afield as Spain and Chile (Balchin, 1971) –did any invertebrates 'hitch a lift'?

When I finally retire in four years time, I hope to restart recording, both to see what changes may have taken place in the Carmarthenshire fauna some 25 years on and also to target the adjacent Swansea-Gower area. In the meantime, there is plenty of recording potential for other recorders.

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