

# DYFED INVERTEBRATE GROUP



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**Subscriptions** are due now for 1989. If you wish to continue to receive the Dyfed Invertebrate Group Newsletter please ensure that you send **four First Class stamps** to the Editor as soon as possible. A few members have already renewed their subscription but the majority of you have not - if you have not yet subscribed, do so now or you will not receive any further issues. If you are in any doubt - check with me rather than let your subscription lapse.

There will be three field meetings in the county again this year - be prepared for typical summer weather and bring a packed lunch. The meetings are to be held at the following venues :

**Saturday 10 June 1989** - West Williamston (Dyfed Wildlife Trust reserve), Pembrokeshire. Meet in the car park at West Williamston (22/032058) at 11.00 am. This diverse area was described in the last DIG newsletter (DIG 11:7-10) and consists of a mixture of limestone grassland and scrub bordering onto saltmarsh. There is plenty of potential for interesting discoveries.

**Sunday 16 JULY 1989** - Royal Aircraft Establishment Aberporth, Cardiganshire. Meet at the main entrance to the base (22/247514) for a full day on this excellent coastal SSSI, finishing around 5.00 pm. We will concentrate on surveying the cliff-top maritime heath and north-facing hanging oakwoods which overlook Cardigan Bay. The Ministry of Defence will require details of nationality, address, and the organisation you represent (where applicable) in advance for each member attending and therefore members wishing to attend must forward these details to - AP Fowles, Nature Conservancy Council, Plas Gogerddan, Aberystwyth, SY23 SEE - by 30 June at the latest. Regrettably, visitors will not be allowed to bring cameras onto the Establishment. This is a joint meeting between the Dyfed Invertebrate Group and the British Entomological and Natural History Society.

**Saturday 19 AUGUST 1989** - Brechfa Forest, Carmarthenshire. Meet in the Forestry Commission car park at Abergorlech (22/586337) at 11.00 am. This site consists of a mixed coniferous woodland with deciduous scrub and open heathy areas. The sheltered fides are likely to be productive for syrphids associated with coniferous woodland and there is also potential for recording myrmecophilous species with the colonies of wood ants Formica rufa.

During the field meetings there are always opportunities for inexperienced members to learn aspects of fieldcraft and identification in a wide range of invertebrate Orders but the main objective of the meetings is to carry out surveys for conservation purposes. It may be profitable to hold 'field workshops' for people interested in specific groups on other dates during the summer (or winter) when more time would be available for instruction. If you have any specific desire to learn more about a particular group, please contact me and, given enough support, we will try and arrange separate meetings for this purpose.

## ORTHOPTERA

### ORTHOPTERA AND DICTYOPTERA IN CARMARTHENSHIRE - IK MORGAN

Remarks from a friend that 'black-pads' (the local name for the common cockroach Blatta orientalis) were frequent in various rooms of the Llanelli Jubilee Swimming Pool (22/502003) resulted in a visit on 18 March. In this building Blatta was so abundant that, when the lights were switched on in a basement room, the floor was thickly and evenly covered by these undesirable creatures: several even jumped out of a drawer in another room which held the keys for the basement! Apparently, repeated attempts by local pest officers to eradicate Blatta in the warm heated conditions of the swimming pool building have persistently failed.

After finding the native tawny cockroach Ectobius pallidus in cliff-grassland on Gower (21/414873, VC41) in late May, attempts were made to find it in similar habitat on the limestone cliffs west of Pendine (22/20) without success. Another negative record is the apparent absence of the lesser marsh grasshopper Chorthippus albomarginatus from saltmarsh grassland on the north side of the Burry Inlet; which is puzzling as it occurs on such sites in north Gower.

The mild winter resulted in the survival of adult grasshoppers well into November this year and on 16 November the field grasshopper C.brunneus was still actively stridulating on a south-facing scree slope at Banc Graig, Aberbranddu (22/704453).

### GRASSHOPPERS AND BUSH-CRICKETS IN CEREDIGION, 1988 - AP FOWLES

Orthopterists were not particularly active in the vice-county this year and as a result there were only records of eight species and no new sites were found for any of our scarcer inhabitants. The start of the season more-or-less coincided with the break of the good weather at the end of June and on the few sunny days when entomologists were out and about orthoptera did not seem to be particularly abundant. The first species recorded, as usual, was the common groundhopper Tetrix undulata on 19 April and adults were reported widely until the last sighting on 26 September. There were far fewer sightings of the common field grasshopper Chorthippus brunneus than expected but they were active longer than any of the other grasshoppers - from 22 June to 16 October. The common green grasshopper Omocestus viridulus was also seen for the first time on 22 June and it was the commonest species reported this year before its last sighting on 9 September. Meadow grasshopper Chorthippus parallelus nymphs were seen on 24 June but the adults were not singing until several weeks later; they were last recorded on 26 September. The mottled grasshopper Myrmeleotettix maculatus was found by AO Chater on dry grassland in Cwm Doethie (22/772511) on 7 July, well away from any other known colony in the county. Later in the summer it was found on several of the shingle heaths in the Ystwyth valley, a habitat it shares with the grayling butterfly Hipparchia semele and there seems to be a close association between the distribution of these two species in Ceredigion.

Only three species of bush-crickets were reported this year - Leptophyes punctatissima, Metrioptera brachyptera and Conocephalus dorsalis. Two short-winged coneheads C.dorsalis were seen by DC Boyce on the upper saltings at Ynyslas (22/614940) on 24 July and several speckled bush-crickets L.punctatissima were swept from rank vegetation on the flanks of the Soden valley (22/369570) on 4 September. A single bog bush-cricket M.brachyptera was seen on the mire at Ynys Edwin (22/677962) on 22 September.

I am grateful to DC Boyce, AO Chater and IS Francis for contributing Orthoptera records in Ceredigion in 1988. The recent publication of 'Grasshoppers & allied insects of Great Britain and Ireland' by ECM Haes and JA Marshall (Harley Books, Colchester) provides an excellent account of the ecology and distribution of our native orthoptera with a superb series of colour plates. It is widely recognised as a milestone in entomological publications and hopefully it will serve as an impetus to further recording of the Orthoptera in Dyfed.

## LEPIDOPTERA

### CARMARTHENSHIRE BUTTERFLIES AND MOTHS, 1988 - IK MORGAN

A species that has declined over much of southern and eastern Britain is the marsh fritillary Eurodryas aurinia, due almost entirely to the drainage and reseeded of old species-rich damp meadows with their wealth of flowers, including devil's-bit scabious Succisa pratensis which is the larval foodplant of the marsh fritillary. In Carmarthenshire many colonies thankfully still survive, although they are becoming increasingly isolated - and hence liable to local extinctions - as more grassland is agriculturally improved. It was pleasing, therefore, to discover four additional marsh fritillary colonies in 1988 at Cefn llech-clawdd (22/365389); south-east of Bwlch-y-groes, Brechfa (22/533303); Cefn Blaenau (22/585413); and Cwm-llwyd, Gwynfe (22/706207)(GC Cundale).

Small pearl-bordered fritillaries Boloria selene also show distinct associations with unimproved meadows, though they are also able to survive on sites that have had some degree of disturbance provided there is plenty of marsh violet Viola palustris for the caterpillars and nectar sources for the adult butterflies. They were recorded at five new localities this year - Cefn llech-clawdd, Bwlch-y-groes, and Cefn Blaenau (as mentioned above), and Pare Matho, Mynydd-y-garreg (22/443082) and near Bwlch farm, Banc-y-llyn (22/580155). Dark green fritillaries were noted at the Cefn Blaenau site on 11 July where several were flying over a hillside sparsely covered in bracken. One was seen north-west of Eithin-tewion, Cilycwm (22/739415) on 4 August.

Although they are normally quite frequent visitors in most years, there are no breeding records of painted ladies Cynthia cardui in Carms to my knowledge. Dr RS Key noted frequent caterpillars on spear thistle Cirsium vulgare near the fore-dunes at Laugharne Burrows (22/27-07-) on 18 July. Another migrant, the clouded yellow Colias croceus, was not reported in 1988 - the first time there have been no records of this species in the vice-county for several years. The unimproved pastures south-west of Cae-garw (22/739415) provided a new locality record for the marbled white Melanargia galathea in July (Dr David Stephens). Earlier, the first adults emerged at Morfa-uchaf, Ferryside (22/371121) on 30 June. Marbled whites were also recorded at Pen-ty meadows (22/483166) on 4 August. Later in the month, on 22 August, this outstanding site held two small blues Cupido minimus, silver-washed fritillaries Argynnis paphia and commas Polygonia c-album along with a host of commoner species. In an adjacent sunny blackthorn Prunus spinosa thicket flew a brown hairstreak Thecla betulae. In all, a total of twenty-four butterfly species have been recorded at this locality and several more can be anticipated.

Good close views were had of a male brimstone Gonopteryx rhamni on 22 August as it fed at the flowers of hardheads Centurea nigra at Llwyn-teg, Llannon (22/555082). Brimstones are quite regularly seen in the Llwyn-teg area where their larval foodplant is alder buckthorn Frangula alnus which grows in the tall hedgerows on sites with impeded drainage due to the thick boulder-clay deposits.

Regular use was made, from late May to early October, of a portable Heath-type moth

trap at Erw-las, Llwynhendy (21/537993) and a modest list of 98 species were identified. This included some uncommon or local species and details of the more interesting are presented below:

Swallow prominent *Pheosia tremula* (7 June) - their larvae feed on poplars and aspens, both of which are frequent nearby.

Bordered sallow *Pyrrhia umbra* (11 June) - a local, chiefly coastal moth in south-west Wales whose larvae feed on restharrow *Ononis repens*.

White-speck *Mythimna unipunctata* (16 June) - an irregular immigrant, mostly to southwest Britain, but hitherto unrecorded in Carmarthenshire (det IJL Tillotson).

Privet hawk *Sphinx ligustri* (29 June) - an adult at light; the larvae are occasionally seen on privets in the Llanelli area (22/50).

Blackneck *Lygephila pastinum* (12 July) - the larvae feed on tufted vetch *Vicia cracca*. Also noted at Stradey (22/495013) on 28 June and at Pembrey Forest (22/393028) on 17 July.

Scarce bordered straw *Heliothis armigera* (9 September) - a very scarce migrant from the Mediterranean region or even further south. New to Carmarthenshire, this specimen occurred after a warm period with southerly winds (conf. IJLT).

Other moths of interest were noted at a wide scatter of localities in 1988. A lightly-grazed acidic pasture amongst woodland south of Cefn llech-clawdd yielded a male gold swift *Hepialus hecta* on 14 June; it emitted a strong smell of pineapples! Not far away, at Penyrallt (22/387373) several chimney sweepers *Odezia atra* were seen; this small, dark day-flying moth feeds as a larva on pignut *Conopodium majus*. A nice find on 22 June was the thrift clearwing *Bembecia muscaeformis*, several of which were observed on thrift *Armeria maritima* at Wharley Point (22/335095). Six-spot burnets *Zygaena filipendula* were noted at Blaen-pant, Carmel (22/577160) - an old limestone quarry - on 24 June; on dry dune grassland at Laugharne Burrows (22/27-07-) on 18 July; and on wasteground at Bynea (21/556988) on 8 August. Five-spot burnets *Z. trifolii* are usually found in damper habitats than their close relatives and were recorded on unimproved pasture south-east of Bwlch-y-groes, Brechfa on 28 June; damp coastal grassland at Morfa-uchaf, Ferryside on 30 June; and at Tywyn Burrows (22/36-05- etc.) where it occurred commonly in the damp slacks on 17 July.

Leaves of mullein *Verbascum thapsus* along the railway line south of Bynea (21/542987) were devastated by the voracious caterpillars of the mullein moth *Cucullia verbasci* on 29 June. Nearby, an area of fen-pasture and willow carr held scarlet tiger moths *Callimorpha dominula* on 8 July - sadly, this site has recently been destroyed by a road scheme. Scarlet tigers were also noted around rushes and other herbaceous vegetation at a flushed pasture on Llety-wen farm, Cwm-du (22/625305). Light-trapping by Tim Davies at his home at Maesyrcrugiau (22/47-41-) produced some noteworthy moths including a Blomer's rivulet *Discoloxia blomeri* on 16 May and Welsh wave *Venusia cambrica*, grey birch *Aethalura punctulata*, and lilac beauty *Apeira syringaria* in late June.

Some recording of pyralid moths was also carried out in 1988. *Catoptria margaritella* - a mainly northern species - was caught at Cefn Blaenau on 11 July and *Agriphila selasella*, a typical saltmarsh species, was frequent at the saltings north of Bynea (21/556992) on 7 August. A commoner species, recorded at Machynys Ponds (21/514980) on 13 August, was *Cataclysta lemnata*. As the specific name suggests, the larval foodplant is various forms of duckweed and at Machynys the moth principally occurs on the two ponds that are densely covered with ivy-leaved duckweed *Lemna trisulca*.

Gratitude is due to all those mentioned in the text, plus Trevor Crosby, George Hutchinson and Graham Hopkins, for submitting records.

## LEPIDOPTERA RECORDS FROM CEREDIGION IN 1988 - AP FOWLES

The status of butterflies in Ceredigion this year was pretty much the same for all species as in 1987, reflecting once again the poor summer weather. The year began with the extraordinary record of a painted lady Cynthia cardui on Constitution Hill, Aberystwyth on 10 January - part of the small immigration that reached the English south coast a fortnight or so earlier. The early warmth of Spring then brought out commas Polygonia c-album in good numbers from 3 April onwards and orange-tips Anthocharis cardamines were very evident throughout the county as the good weather continued. Painted ladies re-appeared again on 12 April and were reported in every month up until the last sighting on 29 October. As Spring advanced there were widespread records of green hairstreaks Callophrys rubi and more than thirty were seen on the moor above Craig-y-pistyll (22/717857) on 6 May. Two days later, fifteen pearl-bordered fritillaries Boloria euphrosyne were flying over the bracken slopes of Cwm Soden (22/364581), but this was the only county record this year. Marsh fritillaries Eurodryas aurinia emerged on 17 May at Rhos Llawr-cwrt NNR (22/411499) and continued on the wing until 4 July. The regular transect at this site indicated a slight decline from 1987 but a newly-discovered colony at Esgairwen-fawr (22/456538) had an estimated 750 adults on the wing one day in June. Another new colony was found in Cwm Cyneiniog (22/699883) and, since the demise of the colony on the fringe of Cors Fochno, this becomes the only known site north of the Ystwyth. The Dyfed Wildlife Trust began a pilot-study to monitor marsh fritillaries on their grassland reserves and fifteen larval webs were counted on Rhos Pil-bach (22/367528) in October.

June began warm and sunny and enticed large heaths Coenonympha tullia to emerge as early as 9 June on Cors Fochno (22/635915). Counts during the standardised transects both here and on Cors Caron (22/685625) were slightly down on the 1987 figures. Small pearl-bordered fritillaries Boloria selene were widely reported from 5 June to 17 July. It seems that dark green fritillaries Argynnis aglaja may possibly have had a partial second brood in 1988 as one was seen near Monk's Cave on 17 August. Their flight-period frequently extends to early August but this is the latest record on file; it may refer to a straggler from the normal brood but, prior to this, the last sighting this year was on 20 July and dark green fritillaries were not particularly abundant in 1988. Indeed, at Ynyclas Dunes (22/605935) just four were recorded on the Butterfly Monitoring Scheme transect, the lowest count since the transect began in 1976. Dark green frits are widespread along the coast but inland most records are of single adults and there are only a few sites where colonies are known to be established. Inland sightings this year included two adults flying over rough grassland at Allt Gelli-gwenyn (22/564524) on 9 July, which possibly indicates the existence of a breeding population.

The remaining species of interest recorded in 1988 tell of continuing declines. There was a single record of a dingy skipper Erynnis tages at Llanina Point (22/401596) on 19 June; there have been few sightings of this species in the county in recent years. Silver-washed fritillaries Argynnis paphia were reported from just two sites and at RSPB Ynyshir (22/680961) they failed to appear on the BMS transect for only the second time since records began in 1981. The annual counts to date are - 1987(1), 1986(0), 1985(3), 1984(10), 1983(2), 1982(2), 1981(5). The scarcity of sightings in the last three years over the whole county is a worrying trend. Graylings Hipparchia semele were seen on 26 June, the earliest date since 1895, but they were only reported from a total of five localities. At Ynyclas, three graylings were present on the BMS transect, continuing the dismal trend since a big decline was observed there in 1985. The counts over the last ten years have been as follows - 1987(10), 1986(2), 1985(2), 1984(37), 1983(57), 1982(31), 1981(42), 1980(35), 1979(22). Finally, the absence of inland records for common blues Polyommatus icarus continues; a perplexing phenomenon as this species is extending its range in other parts of Britain.

It was also a quiet year for moths in Ceredigion with no species added to the county

list; however, the number of recorders continues to grow, adding to our understanding of the distribution of the local moth fauna. The highlights in 1988 were the records of five species which had not been recorded in Ceredigion for many years - orange sallow Xanthia citrigo, thrift clearwing Bembecia muscaeformis, spinach Eulithis mellinata, lead-coloured pug Eupithecia plumbeolata and marsh oblique-barred Hypenodes turfosalis. An orange sallow larva was found underneath the bark of an old lime tree at Plas Gogerddan (22/630837) on 13 May and an adult came to light at the Rothamsted trap there on 12 October, the first county records since 1954. Thrift clearwings had a good year in Dyfed with several sightings in Pembs and Carms; a singleton was swept from coastal grassland at the mouth of Cwm Soden (22/367578) on 20 June. JH Salter had reported the species from Allt-wen, Aberystwyth in the early 1930's but there had been no other Ceredigion records in the meantime. The spinach is probably not uncommon in Ceredigion as it feeds as a larva on currant bushes but there are only ten previous records of the species in the county. One was taken in a light-trap in a garden at Furnace on 18 June, the first vice-county record since 1976. The remaining two species were taken in the Rothamsted trap at Ty Coed, Tregaron (22/687618), both of which had only one previous county record. The lead-coloured pug was last seen in 1964 at Tregroes whilst the marsh oblique-barred was found on Cors Fochno in 1968. Seven specimens of the latter were captured between 22 July and 13 August and it is likely that they have been overlooked in the past due to their resemblance to the micro-moths. As always, there were far too many interesting records in 1988 to mention them all but some of the more noteworthy are listed below.

Several of the macro-moths which are regarded as nationally notable are quite widespread in west Wales and are recorded annually in Ceredigion from a number of sites. Species which can be classed in this way include scarlet tiger Callimorpha dominula, devon carpet Lampropteryx otregiata, pale pinion Lithophane socia, golden-rod pug Eupithecia virgaureata, oak-tree pug E.dodoneata, double-line Mythimna turca, dotted carpet Alcis jubata and red-necked footman Atolmis rubricollis - all of which were recorded in 1988. Five other notable species were recorded this year. Foresters Adscita statures were seen at two sites on the coast south of New Quay on 20 June - Cwm Soden and Coybal (22/369591). This, too, is not an uncommon species in Dyfed but of rather more localised distribution than the examples above. The barred hook-tip Drepana cultraria may also prove to be widespread in the vicinity of beech trees but records to date are few and far between. They were last recorded in 1983 before one was taken at Plas Gogerddan on 16 May this year and another came to light at Furnace (22/686953) on 9 August. Two species of pugs, which are frequently recorded from Ynyslas, were taken in Rothamsted traps in sites away from the coast. A single shaded pug Eupithecia subumbrata was captured at Ty Coed, Tregaron on 20 June and a thyme pug E.distinctaria, which must have been several kilometres away from suitable habitat, was caught at Plas Gogerddan on 26 June. E.subumbrata had previously only been recorded from Ynyslas but E.distinctaria has also been found at Mwnt. Finally, a grey scalloped-bar Dyscia fagaria was taken on 6 June at Tregaron. In recent years this species has only been recorded from the Cors Caron area, where it is seen annually, but it is probably widespread on the upland moors.

Other records of interest relate to the gradual increase in sightings of species previously regarded as rare in Ceredigion. These include a dingy shell Euchoeca nebulata at Plas Gogerddan on 19 June; a broad-bordered yellow underwing Noctua fimbriata at Salem (22/699843) on 19 July and at RAE Aberporth on 17 September; four white satin Leucoma salicis at Tregaron on 25 & 26 June; and a confused Apamea furva on 25 June, also at Tregaron. A V-moth Semiothisa wauaria was taken at Salem on 11 July - this is another currant-feeder (like the spinach moth mentioned above) and this is the first county record since 1984.

The mild winter weather produced a spate of unusual records of moths on the wing well outside their normal flight-period. A dark arches Apamea monoglypha at Salem on 6 November was three weeks later than the previous latest date for the species in Ceredigion (18 Oct 1986). The day before, a hebrew character Orthosia gothica at

Tregaron was more than three months earlier than its usual appearance and another was taken at Salem on 11 November. Two other species at Tregaron were fooled into thinking that Spring had come early - an early thorn Selenia dentaria on 30 December and spring ushers Agriopis leucophaeria on 28 & 31 December. This peculiar phenomenon has also been reported elsewhere in Britain and it will be interesting to see how many more species emerge earlier than usual if the mild weather continues beyond the turn of the year.

In February 1986 a severe fire on Cors Fochno destroyed approximately two-thirds of the area inhabited by rosy marsh moths Eugraphe subrosea and subsequent investigations of larval distribution in 1986 and 1987 showed that the larvae were no longer present on the burnt area of the bog. In 1988 a systematic and quantifiable survey was instigated to chart the eventual, hoped-for, re-colonisation. Counts on the night of 21 May revealed that the larvae were more or less evenly distributed at a rate of one per four square metres on the area of bog which had escaped the fire. The larvae were only found feeding on bog-myrtle Myrica gale, with two-thirds of the individuals occurring on plants which were between 25 & 30 centimetres tall. The same recording effort on the burnt area produced no signs of larvae. Whatever reason prevents re-colonisation at present, and there are several untested theories, it is clear that the fire has had a prolonged effect upon the colony of rosy marsh moths at Cors Fochno. Another accidental fire could easily wipe out the rest of the colony, one of only three in Britain, altogether and an improved system of fire-breaks has been installed to try and ensure that this does not happen. The larval transect will be continued in future years to attempt to chart the progress of re-colonisation on the burnt mire; it will be of great interest to see how long this takes.

#### ACKNOWLEDGEMENTS:

The recording of nocturnal insects to a level which gives a satisfactory picture of their status and distribution in a vice-county is clearly a joint effort and the steady increase in the number of light-traps operated in Ceredigion is gratefully welcomed. Similarly, the short flight-period of many of our scarcer butterflies means that a network of observers is required to give adequate coverage. For their help with the recording of Lepidoptera in Ceredigion in 1988, I am extremely grateful to the following - M Baines, R Bamford, DC Boyce, PM Burnham, AO Chater, DK Clements, S&A Coker, R Cooke, JE Davis, IS Francis, C Fuller, PR Holmes, M Johnson, M Jones, R Liford, J Moore, P Mudie, H Roderick, I Savage, R Squires, IJL Tillotson, I Williams and D Woolley.

#### BUTTERFLIES AND MOTHS IN PEMBROKESHIRE IN 1988 - R ELLIOT

Dingy skippers Erynnis tages were represented by single records in 1988 from a disused quarry near West Williamston (22/03-05-) on 17 May [RE] and on limestone grassland at Stackpole (11/975945) on 27 May [APFL]. Similarly, there was only a single record of grizzled skipper Pyrgus malvae from Pen yr Afr, near Cemaes Head (22/122485) on 18 May [RMM]. Only one hairstreak species, the green hairstreak Callophrys rubi was recorded this year and this species is represented by only two records - one from Cemaes (22/133494) on 18 May [RMM] and the other from Llanwnda (12/910403) on 11 June [SBE & HHE]. Small blues Cupido minimus were recorded from two sites on Caldey Island (21/139969 and 21/140970) on 26 May [SBE] and along the coast path near Trwnhwrdryn, St David's Head (12/731272) during a DIG field meeting on 25 June [APF & IKM].

The painted lady Cynthia cardui provided the first butterfly record of the year when a specimen was photographed by Elizabeth Johnson during the first week of March on rocks at the north end of Newport Sands [per MP]. The next record was from Wooltack Point [PC] on 6 May, with further records on fourteen other occasions up to 15 September at Pwllarian (12/887401) [SBE]. There has been only one record for the comma Polygonia c-album this year when a single specimen was seen on 15 August at West Williamston

There were eight records for the small pearl-bordered fritillary Boloria selene during an (apparently) very short flight-period between 10 & 26 June. Specimens were seen at Llanwnda, Llangolman, Dinas (12/98-36-) and Pointz Castle [SEE] and on the coastal heath immediately either side of the National Trust boundary fence along the coast path around St David's Head during the DIG field meeting on 25 June. The final record for the year was of a specimen seen on Whitesand golf-links on the following day [GK]. Only two records for pearl-bordered fritillary B.euphrosyne were received, one from Pen yr Afr [RMM] on 18 May and the other from Dowrog Common [GK] on 22 June [*Date and habitat would suggest that this record refers to small pearl-bordered fritillaries - Ed.*]. Dark green fritillaries Argynnis aglaja were first recorded at Newgale (12/842228) and Pointz Castle (12/838230) on 18 June [SBE], although the first record for Skomer Island was not until a week later, with the final record there on 16 August [SS]. Despite the relative abundance of the silver-washed fritillary A.paphia in the county, there were only three records for this species for the whole season - two from West Williamston on 31 July & 7 August and at Pengelli Woods (22/12-39-) on 17 August [RE]. There were also three records for the year for marsh fritillary Eurodryas aurinia. Specimens were seen on 1 May [*an exceptionally early date - Ed.*] at Mynachlogddu (22/143294) and 10 June at Cwm-blaen-bwlan (22/236381) [SBE], and a freshly emerged specimen was recorded near the bridge on Dowrog Common nature reserve on 5 June [MP].

The grayling Hipparchia semele was recorded only from Skomer Island where a maximum of 11 were seen on 7 August [SS]. There were no records at all from the mainland.

During 1988 I ran two moth traps at various places in the southern half of Pembrokeshire and recorded over two hundred different species, many of which were common species, of course, but those recorded below seem worthy of special mention.

Blomer's Rivulet Discoloxia blomeri - A single specimen was taken at Upton Park Farm (22/01-04-) on 27 June. Although Skinner (1984) gives this as a local species in south Wales, PM Miles (1978) does not include any Pembrokeshire records in his catalogue of Welsh occurrences of the species. I have been able to find only one previous record for the vice-county: on 1 Aug 1978, N Davis took two in a moth-trap at Stackpole (11/96-96-) during her studies on bat-feeding (pers. comm., data from notes for an unpublished Ph.D thesis).

Small yellow wave Hydrelia flammeolaria - On 27 June a single specimen was taken at Lamphey (22/016006). I can find no previous record of this species in the vice-county.

Portland moth Ochropacha praecox - A singleton was taken at Lamphey on 11 September. Barrett (1875) gave the distribution of the moth in Pems. as "On coast sandhills; scarce", whilst Birkett (1951) mentioned that he had not taken this species during a visit to the Tenby area. There are no other records and it would seem that the Portland moth has not been recorded since Barrett's time.

Dog's tooth Lacanobia suasa - A single specimen was taken at Upton Park Farm on 27 June. Once again, I have been unable to find any previous records for the vice-county. This is a lowland species which is often associated with salt-marshes, of which there are plenty in the vicinity of the trap-site. However, just across the River Carew at West Williamston, there were no records of the species during intensive trapping which took place in the early 1980's.

Webb's wainscot Archanara sparganii - A single taken at Lamphey on 23 August is the second county record. The previous record is from Treginnis peninsula (12/72) in 1961 (per BRC). The moth is associated with coastal marshes containing reedmace Typha spp.

Other good moth records for the year came from Skomer Island (12/725095) where Steve Sutcliffe recorded a number of locally-distributed coastal moths including - Barrett's marbled coronet Hadena luteago (one in June), large ranunculus Polymixis flavicincta (three in Sept), thyme pug Eupithecia distinctaria (one in July), square-spot dart Euxoa obelisca (three in Aug & Sept), and crescent dart Agrotis trux (sixty in July & Aug).

## Recorders:

John Bird	Fred Bos	Peter Corkhill
Jack Donovan	Ron Elliot [RE]	HH Evans[HHE]
Stephen Evans[SBE]	Marion Finch	Adrian Fowles[APF]
Gordon KnighttGK]	Ken Longstaffe	Richard Meyer[RMM]
Ian Morgan[IKM]	Margaret Patterson[MP]	Joan Saunders
Stephen Sutcliffe[SS]		

## References:

BARRETT, CG (1875) - Included in MASON: Guide to Tenby. Seventh Edition

BIRKETT, NL (1951) - Some Lepidoptera records from Tenby, 1951. Ent. Rec. 63:242-244

MILES, PM (1978) - Blomer's rivulet *Discoloxia blomeri* and Dutch Elm disease *Ceratocystis ulmi*. Ent. Gaz. 29:43-46.

SKINNER, B (1984) - Colour identification guide to Moths of the British Isles. Viking.

**ODONATA**

## DRAGONFLIES IN CARMARTHENSHIRE IN 1988 - IK MORGAN

The so-called hairy dragonfly *Brachytron pratense*, which is confined in Dyfed to ditches, ponds and fens principally on the coast (but also extending inland along the Tywi valley) is always a noteworthy find. A surprise record of this species was that of Matthew and Richard Pryce who photographed a newly-emerged individual on their garden path at Pwll (22/477012) on 4 June; presumably a wanderer from nearby coastal ditches. A male was observed in more representative habitat at the Machynys ponds (21/514980) on 11 June.

Mention was made in last year's Odonata report (DIG 9:8) of the scarce blue-tailed damselfly *Ischnura pumilio* in atypical habitat - the brackish marsh near Kidwelly. Similarly, a female was caught on the saltmarsh at Morfa-bacas, Bynea (21/542977) on 16 June as it rested amongst saltmarsh rush *Juncus gerardii*. A royal fern *Osmunda regalis* bog and an adjacent newly-created pond on the recently-restored open-cast coal site at Glyn-tai (22/610131) near Ammanford held no less than a dozen individuals of *I.pumilio*, along with the commoner large red damselfly *Pyrhosoma nymphula*, common blue damselfly *Enallagma cyathigerum* and broad-bodied chaser *Libellula depressa* on 13 June. Characteristically a scarce and localised inhabitant of upland flushes, the keeled skimmer *Orthetrum coerulescens* was found in quantity at Cefn Blaenau (22/585413) in July and another new site for this specialised dragonfly was at Lan farm, Gwynfe (22/714209), where GC Cundale noted several on 28 June.

## DRAGONFLY RECORDING IN CEREDIGION SINCE 1984 - IS FRANCIS

In 1985, 'West Wales Dragonflies' by Stephen Coker and Tony Fox was published, which contained almost all recent dragonfly records for Dyfed up to the end of 1984. Since that time, recording has continued and, despite the relative lack of observers in Ceredigion, an impressive total of new records has built up at both 10-km and 1-km square levels. The table below shows those species which have been recorded in Ceredigion from 1985 to 1988 inclusive, with a provisional list of the additional squares to those reported in Coker and Fox (1985).

Species	No. of new squares (1985 - 1988)		Total No. of 1-km squares
	10-km	1-km	
<i>Calopteryx virgo</i>	4	14	38
<i>C.splendens</i>	-	3	11
<i>Lestes sponsa</i>	1	10	95
<i>Pyrhosoma nymphula</i>	1	45	279
<i>Ischnura elegans</i>	2	11	95
<i>I.pumilio</i>	1	9	28
<i>Enallagma cyathigerum</i>	2	20	148
<i>Coenagrion puella</i>	3	34	112
<i>Ceriagrion tenellum</i>	1	1	8
<i>Aeshna juncea</i>	-	9	108
<i>A.cyanea</i>	3	9	36
<i>Anax imperator</i>	-	-	12
<i>Cordulegaster boltonii</i>	4	34	187
<i>Libellula depressa</i>	2	11	58
<i>L.quadrimaculata</i>	3	10	58
<i>Orthetrum coerulescens</i>	4	9	27
<i>Sympetrum striolatum</i>	1	26	163
<i>S.danae</i>	1	7	97

Eighteen species have been recorded in Ceredigion during 1985-1988; only fifteen were seen in 1988 with no records at all for the banded damselfly *Calopteryx splendens* or the common hawkfly *Aeshna juncea*. In addition, the emperor dragonfly *Anax imperator* has only been seen at one site since 1984, the pingos on Rhos Llawr-cwrt NNR (22/410500). It is apparently a scarce species in Ceredigion and is recorded from a total of just twelve 1-km squares; any records in 1989 would be especially appreciated. There have been no records for the variable damselfly *Coenagrion pulchellum* or the black-tailed skimmer *Orthetrum cancellatum* since 1983 in the vice-county and only one unconfirmed sighting of the hairy dragonfly *Brachytron pratense* (in 1988) since 1982. However, this probably reflects a lack of observer effort, since these species all occur in one area only, the fringes of Cors Fochno (22/69), where the habitat remains suitable for all three. It would be helpful to examine this area in 1989.

On the credit side, there have been a number of new records for the scarce blue-tailed damselfly *Ischnura pumilio* and the keeled skimmer *Orthetrum coerulescens*. These two species are now recorded from 28 and 27 1-km squares respectively (12 and 10 10-km squares) in the vice-county. There are undoubtedly a number of additional sites to discover for these two species in the future. In terms of coverage, the least well-covered 10-km squares in Ceredigion are SN34 and SN44. These two squares hold some potentially very interesting sites for dragonflies and records from this area in 1989 would be very gratefully received.

Finally, an interesting record of the southern damselfly *Coenagrion mercuriale* has come to light. The Zoology Department at the University College of Wales, Aberystwyth has a cabinet of insects which is a relic of the days (up to 1961) when the College maintained a zoological museum. One of the drawers in this cabinet contains an assortment of dragonfly specimens, most of which have been collected from other parts of Britain but there are five specimens which are labelled as having been taken in the Aberystwyth area. One of these specimens, although in a sorry state through lack of curation, is clearly identifiable as *C.mercuriale* and, indeed, bears a handwritten label (in ink) identifying it as '*Agrion mercuriale*', above which (in pencil) is written 'Morton-CM<sup>1</sup>', presumably the name of the captor. On the same pin is a typed label with the words '*Agrion mercuriale*, Llanrhysted' (sic). Unfortunately, there is no further information attached but it can be assumed that this refers to Llanrhystud (22/56), south of Aberystwyth. Whether or not it would be possible to claim this as a new vice-county record is debatable. Llanrhystud is well away from any known colonies of the species but it does fall between Anglesey, where it was discovered in 1983 (Colley 1983), and the Pembrokeshire stronghold. Although

nowadays there appear to be few suitable sites in the Llanrhystud area of the kind preferred by the species in Pembs - small, shallow, well-grazed flushes (Evans 1987) - it is impossible to say what the area was like earlier this century. The typed label dates from 1939 (at the earliest), when most of the insects in the collection were captured, but the specimen may considerably pre-date this. There are several specimens in the collection from the New Forest (where C.mercuriale is widespread), including Platycnemis pennipes, which were collected between 1907 and 1930 and it is possible that the wrong locality has been added to the typed label when the collection was assembled for the museum. This is a mystery which has no obvious solution but, nonetheless, it is an intriguing record and there is always a possibility that a breeding site still exists in the Llanrhystud area - all suitable localities will be carefully surveyed in 1989.

#### References:

Coker, S & Fox, AD (1985) - West Wales Dragonflies. Mountain Books.

Colley,LT (1983) - Coenagrion mercuriale (Charpentier) in Anglesey, North Wales. J. Brit. Dragonfly Soc. 1:27.

Evans, F (1987) - Aspects of the ecology of the southern damselfly Coenagrion mercuriale in Pembrokeshire. DIG Newsletter 6:6-8.

## DIPTERA

### DIPTERA RECORDING IN CARMARTHENSHIRE, 1988 - IK MORGAN

The syrphid season started early with Eristalis pertinax abroad in warm weather at Llwynhendy (21/536996) on 15 February; by the end of that month E.tenax was noted at flowers of snowdrops Galanthus nivalis and Episyrphus balteatus on lesser celandine Ranunculus ficaria in Stradey Woods (22/49-01-). Criorhina ranunculi was found at three localities - Stradey Woods; Furnace (22/504016); and south-east of Llandovery (22/805346) - all on the yellow male flowers of willow Salix cinerea in early-mid April. Probably widespread, if somewhat local, in the county is the grey Portevinia maculata - a new site for this species (which is associated with wild garlic Allium ursinum) was in the dingle woodland south of Drefach-Felindre (22/354375) on 19 May. Sweeping rank, acidic pasture near Mynydd-y-garreg (22/443082) produced the, mostly northern, Chrysotoxum arcuatum in mid-June; another species that may prove to be widespread (if uncommon) in appropriate habitat.

Dinefwr Deer Park, Llandeilo yielded two rare hoverflies in June - Brachyopa insensilis (det SJ Falk) on a beech sap-run (22/613224) and Xylota xanthocnema (coll. PM Pavett) caught basking on a shed-roof (at 22/608225) on 17 June. Both of these Red Data Book species are new to Wales. Away from Dinefwr, Xylota coeruleiventris (an egg-bloated female) was observed at Abergorlech (22/587337) on 28 June - licking, with her palps, the surface of the white petals of field rose Rosa arvensis - presumably for the pollen that had fallen from the anthers and which was caught in the receptacle of the petals. Survey work at Machynys Ponds (21/511979) by Mark Pavett in early June produced Lejogaster splendida, Anasimyia contracta, A.lineata and Helophilus trivittatus. This latter species was also caught at the Dinefwr Oxbows (22/619217) by Graham Hopkins. A visit by Steve Falk to the wet mossy slacks around the Witchett Pool (22/285074) on Laugharne Burrows on 18 July revealed the presence of Chrysogaster macquarti, a species more usually associated with acidic bogs.

Graham Hopkins continues to produce quality records with his discovery of the large bee-mimic Erizona syrphoides feeding at an umbellifer next to a small spruce plantation

near Penyrheolddu (22/662148), and his recording - for the third consecutive year - of Rhingia rostrata at Dinefwr, though in 1988 at a new sub-site, on knapweed Centurea nigra flowers in the Llandyfeisant churchyard (22/622222). Didea fasciata was noted in three localities during August, all associated with conifer plantations - on flowers of bramble Rubus sp., parsnip Pastinacea sativa and knapweed. Arctophila fulva too, was noted on several occasions (on unimproved meadows) and Eumerus ornatus, caught at Parc Gitto (21/534997) on 2 August was a new vice-county record.

The warm spring resulted in an early emergence of the bee-fly Bombylius major, with several being noted at Dinefwr Castle woods on 5 April. Its relative B.canescens was only recorded on two sites in 1988 - at Llandyfeisant churchyard on 17 June and in the old limestone quarry at Blaenpant, Carmel (22/577160) on 24 June. Tabanus cordiger, Xylophagus ater and the handsome crane-fly Ctenophora bimaculata (a female, det. SJF) were notable dipterans caught at Dinefwr Park (22/609225) in 1988. Examination of the foliage around the calcareous springs at the north-west end of the Deer Park (22/609227) produced Oxycera rara for Adrian Fowles on 25 July; these tufa springs are worthy of further investigation this coming season to ascertain whether any other notable soldier-flies frequent the site. The soldier-flies Oplodontha viridula, Nemotelus notatus and N.pantherinus were all noted at various coastal sites in 1988; Oplodontha being frequently abundant in brackish-marsh habitats. Apart from the usual Philonicus and Dysmachus records on the coast, the only asilid records of interest were of Machimus atricapillus on the pathway to Eithin-tewion, Cilycwm (22/745413) and at Bryngwyn, Llandeilo (22/668212), both in early August.

Steve Falk produced several records of uncommon sciomyzids (snail-killing flies) during his visit to Carms in July. At Laugharne Burrows (22/284074) a total of eleven species were found included the scarce species Sciomyza simplex and Antichaeta analis, whilst the highly-regarded dune-slack pond in Pembrey Forest (22/373039) yielded an astonishing thirteen species in 15 minutes sweeping, which included the notable Pteromicra glabricula, Sciomyza simplex and Pherbellia dorsata. These latter two species were also found amongst the Glyceria fen at Abergwili oxbows (22/445210) along with the local, western scathophagid Scathophagus scybalaria (which was also noted at Laugharne Burrows and Dryslwyn (22/550200).

#### DIPTERA RECORDING IN CEREDIGION: HIGHLIGHTS OF 1988 - AP FOWLES

After the excitements of the previous year, 1988 produced few outstanding Diptera records - chiefly due to a lack of observers. The reduction in recording effort is emphasised by the fact that just 69 species of hoverflies were reported this year, after two years in which more than one hundred species were observed. Despite this there were still three additions to the county list of syrphids - Brachypalpoidea lenta, Cheilosia praecox and Eumerus sabulorum - and the total has now crept along to 136 species. There were no additions to the county fauna for any of the other popular families recorded in the county but, nonetheless, a number of interesting species were reported.

Apart from the species mentioned above, there were no particularly noteworthy hoverfly records in 1988. Species such as Criorhina berberina, C.ranunculi, Eristalis rupium and Tropidia scita were seen again in known sites and Parasyrphus nigritarsis males were frequently in position on my washing-line at Llanfarian (22/584767) between 11 and 22 May. Searches for females around the edges of the adjacent dingle woodland of Coed Nant Llolwyn drew a blank and, for the present, it must be assumed that they spend their time up in the canopy. Coed Nant Llolwyn (22/588770), however, did produce two of the new county records with B.lenta on 16 May and C.praecox on 31 May. B.lenta was also seen later on the same day (16 May) in the estate woodlands of Plas Gogerddan (22/628839) and again on 22 June. The same site also had Eriozona syrphoides on 5 Sept and evidence suggests that the mixed plantations here support an extensive and rich hoverfly fauna.

Eumerus sabulonum was found by the National Trust Biological Survey on 20 June at Cwm Soden (22/367578); there are several records for the coastal cliffs in Pembs and hence its presence here was anticipated. Arctophila superabiens (=fulva) was also present in the Soden valley in early September and at the head of Cwm Clettwr (22/681918) on 25 September. Two new sites for Criorhina floccosa were Llanaeron (22/475602) and Blaencanog-fach (22/486583) on 21 May and Platycheirus scambus was taken on a flushed pasture at Yspyty Cynfyn (22/755790) on 23 June.

Conopid flies were almost non-existent this year and their parasitic counterparts in the Bombyliidae also seemed to be less common than usual. The notable Bombylius canescens was reported from two sites - Ciliau Aeron (22/498596) on 26 May and Llwynwermod (22/373581) on 21 June. The only robberfly of note was Leptarthrus brevirostris, also recorded from Llwynwermod on 21 June. On the same day the scarce dolichopodid Sciapus contristans was taken in a wet meadow at Penbryn (22/291523). Horseflies were less troublesome than usual but Tabanus sudeticus was found in three upland valleys during July - at Dyffryn Castell (22/771813), Cwm Doethie (22/772511) and Cwm Cyneiniog (22/720875). T.cordiger was present in my garden on 21 May and it is interesting that all records of this species in the county so far have been from the banks of streams and rivers.

Finally, the ancient woodland indicator species Xylophagus ater (Dip:Xylophagidae) was recorded for the first time in the county when a male was captured on the trunk of a beech tree at Plas Gogerddan (22/630837) on 14 May and on the following day there were five individuals in the same area. Larvae were found later in the year under bark in Cwm Soden (22/367578), Cwm Cyneiniog (22/690884) and at Nantyrnnon (22/671783).

The weather did not help Diptera recording in Ceredigion this year and I am grateful to Dave Boyce, Arthur Chater, Ian Francis, and Keith Alexander and Dave Clements of the National Trust Biological Survey for their records which have considerably helped to boost this account.

## COLEOPTERA

### CARMARTHENSHIRE COLEOPTERA RECORDS, 1988 - IK MORGAN

An uncommon carabid, Agonum nigrum, provided one of the first beetle records of note in 1988 when one was collected, under logs, at Llansteffan beach (22/354105) in late January; this species was also found at Pembrey Burrows (21/41-99-) later in the spring. Lebia chlorocephala, as brightly-coloured as any chrysomelid, was found at the rear of the pebble beach near Gilman Point (22/226076) on 22 April. A visit to Tywyn Point (22/358061) on 17 July to inspect the damp slacks where Panageus crux-major was found in 1985 was made profitable by the discovery of a single P.bipustulatus walking across a nearby area of dry dune. Lindroth (1974) states that the two British Panageus species "are never found together", but the close juxtaposition at Tywyn Point of the two contrasting habitats (freshwater marsh and arid grassland) required by these beetles clearly disproves this statement. On the same date, the oedemerid Nacerda melanura - similarly patterned to the unrelated and very common soldier-beetle Rhagonycha fulva - was found under driftwood at Tywyn Point. Another attractive carabid is Asaphidion pallipes, which looks like a tiny metallic tiger beetle; it was collected under stones besides a minor wooded stream near Llety-wen (22/629303) in early July.

Due to identification difficulties, the writer only rarely collects staphylinids, but the orange and black Deleaster dichrous (det AP Fowles) was found at two river shingle sites - near Dryslwyn (22/547201) on 30 April, and at Glantowylan (22/466213) a few days later. Deleaster was also found by PM Pavett on shingle at Dinefwr (22/603221) on 26

June. A more imposing rove-beetle is the notable Staphylinus dimidiaticornis (det RS Key) collected at Tywyn Point in late April, and at Morfa-uchaf, Ferryside (22/369123) at the end of May. Other notable beetles collected at Morfa-uchaf - an area of dunes, grassland and saltings - were the sand-camouflaged Bembidion pallidipene and Notoxos monoceros, both in strandline debris. The coast provided another noteworthy record in the form of Bembidion iricolor, collected by AP Fowles on the saltings at Black Scar (22/314107) on 26 May.

The ladybirds, too, have provided useful records, with the eyed ladybird Anatis ocellata beaten from a pine in Pembrey Forest (22/397007) in April and, on the last day of that month, three individuals of the five-spot ladybird Coccinella 5-punctata were found on river shingle at a 'new' site south-west of Dryslwyn (22/547201). Richard Pryce recorded the orange ladybird Halysia 16-guttata - predictably under sycamore leaves - at Gelli Aur (22/597197) on 30 April and this species was noted in parts of Stradey Woods (22/494014 etc..) at the end of August. The very end of 1988 produced a noteworthy ladybird find, the 19-spot ladybird Anisosticta 19-punctata hibernating in old moth larvae burrows and broken stems of reedmace Typha latifolia at Bynea (21/553989). This Typha fen also held Silis ruficollis on 12 June, a pleasing find since the Machynys ponds (21/511979) - another locality for the species - are about to be destroyed for tourist developments. Cantharis thoracica, another notable soldier beetle, was noted at several less-eutrophic wetland sites in 1988 - the fringes of the northern Talley lake (22/632334) and wet slacks at Tywyn (22/367045) and Laugharne (22/271073) Burrows.

Other uncommon wetland beetles were the chrysomelids Chrysolina fastuosa in Salix carr south-east of Pontnewydd (22/448079); Donacia vulgaris on the Dinefwr ox-bows (22/608223); and Cassida murraea was noted at three sites - Tywyn Burrows, Llety-wen, and Pare Gitto (21/537997) - all associated with fleabane Pulicaria dysenterica. The attractive red melyrid Anthocomus rufus was found amongst Carex otrubae in a willow carr at Bynea (21/543987) on 11 September.

Conversely, a species of drier situations is Chrysolina hyperici, twenty of which (including copulating pairs) were on perforate St. John's wort Hypericum perforatum growing alongside the railway at Bynea (21/541986) in mid-June. Chrysolina staphylea was found at Pembrey Burrows and at Dolwen Point, Pendine (22/233077) in September. Galeruca tanaceti, a characteristic species of dry, neutral grassland, was frequent in several enclosures at Cae Caradog farm (22/648462), and also at Pembrey Burrows, in October.

Warm weather in mid-October resulted in the appearance of the small hairy dung beetle Aphodius contaminatus at Machynys (21/506983), whilst far earlier in the season, about a dozen Trichius fasciatus were found - ready to emerge - in logs at Tywyn Point by PM Pavett on 25 June. A week or so later, Richard Pryce noted an adult feeding at the flowers of a pyramidal orchid Anacamptis pyramidalis in the same area. In Carmarthenshire, Trichius is a regular inhabitant of drift-strewn duneland. Another 1988 record was at Laugharne Burrows on 17 July when Roger Key noted an individual embedded in the flower-head of a spear thistle Cirsium vulgare.

The important deadwood site at Dinefwr Park (22/61-22- etc..) attracted further attention in 1988. Interesting species found by the author include Thanasimus formicarius, Melandrya caraboides, Leiopus nebulosus, Thymalus limbatus, Orchesia undulata and, on a sap-run, Mycetophagus piceus (det RS Key). Similarly, valuable work completed by Mark Pavett at Dinefwr also brought dividends, which - in addition to some species already mentioned - included the carabid Laemostenus terricola, Mesites tardii, Xyleborus dryophagus, Platypus cylindricus (RDB3), Eledona agricola, Ctesias serra, the colydid Bitoma crenata and the click beetle Ampedus balteatus. Melandrya caraboides was also noted on the warm evening of 22 May, when several were observed emerging from an old white willow Salix alba south-west of Bynea (21/543987).

Garth Foster spent three days surveying water beetles in Carms in mid-September and recorded eight notable species along with other uncommon species such as Agabus congener

and Hygrobia hermanni. One of the notables was Noterus crassicornis which was recorded for the first time in Dyfed at Upper Talley lake (22/632332) on 12 Sept, where it was the commonest species encountered. Deronectes latus was found in the Afon Cothi (22/574334) and a muddy puddle on an adjacent field produced Laccobius atrocephalus; L. atratus and Chaetarthria seminulum were taken on a shaded marsh alongside a stream at New Inn (22/451375); Hydroporus longicornis was a member of a characteristic assemblage of acid valley mire species recorded at Cors Farlais (22/677348); Rhantus grapii occurred in grazing fen ditches at Kidwelly (22/399060); and Stictonectes lepidus was found in the reservoir at Llyn Lech Owen (22/568152). Other records of water beetles in 1988 by the author added several species to the county list, including Enochrus halophilus from Machynys Ponds (21/511981) on 20 March; Coelambus confluens in a temporary pool on the limestone outcrop at Careg-eidon (22/493136) on 29 March, Helochares lividus at Machynys on 16 October, and Dryops luridus in a coastal brackish pond, south of Penallt (22/385067) on 11 March. Some of these records provide confirmatory specimens for older, unreliable records.

Thanks are due to Messrs GN Foster, AP Fowles, RS Key and PM Pavett for submitting records.

#### References:

LINDROTH, CH (1974) - Handbooks for the identification of British Insects. Vol .IV (2). Coleoptera: Carabidae. Royal Entomological Society, London. Page 121.

#### COLEOPTERA RECORDING IN CEREDIGION DURING 1988 - DC BOYCE

The ground beetles (Carabidae) have provided the greatest number of significant records during the year, perhaps the best of which were the two sightings of the arboreal, caterpillar-hunting Calosoma inquisitor. On 28 May, AO Chater discovered a specimen under fallen oak bark in oak/beech woodland at Coed Dipws (22/705883) and a second individual was caught in a pitfall trap on 27 June in Coed Rheidol NNR (22/739778). Pterostichus oblongopunctatus was also found in the Rheidol woods during the year; this is a more widespread species in northern Ceredigion, although it appears to be largely confined to ancient oak woodland. In addition to Coed Rheidol, this species was found in Coed Cwm Clettwr (22/670920), Cwm Cyneiniog (22/697882), Coed Allt-fedw (22/705964) and Coed Mynachlog-fawr (22/744655). P. aethiops was found hibernating under bark in Coed Cwm Clettwr (where it was first discovered in 1986) on 25 Sept. The shingle heaths of Ceredigion have received little entomological attention but the discovery of two ground beetles new to the vice-county in this habitat suggests that they may have considerable potential. The species in question were Pterostichus lepidus (recorded at Blaen-y-ddol (22/718720) and Ty'nbedw (22/695718) on the Afon Ystwyth) and Amara equestris (recorded at Ty'nbedw and also at Nantyrnonen (22/670783) on the Afon Rheidol).

Bembidion quinquestriatum is a synanthropic ground beetle which is most often found on old walls. There are few records for the British Isles with the majority of these being for coastal areas (Whitehead 1988). On 9 July a singleton was collected from stony debris at the base of an old pig-sty wall at Denmark Farm (22/586536), near Llanybi. This is the first modern record for Ceredigion; the only other known occurrence being a specimen in the NMW collection of JH Salter which was taken on 24 September 1930 at Llanbadarn Fawr (22/598810). The other interesting Bembidion species noted in VC46 during 1988 are all exclusively coastal in distribution. B. maritimum and B. laterale were found on a number of occasions on the brackish river shingle behind Tanybwllch beach (22/580803). The latter also occurred on the Dyfi saltmarsh (22/628936) on 22 April. B. iricolor was discovered for the first time in Ceredigion amongst leaf-litter at the edge of a muddy ditch on the brackish marsh at Cors Afon Ddu (22/672942) on 15 May. B. saxatile favours seepages and flushes on coastal cliffs and during 1988 records were obtained

from Clarach (22/584837), Aberaeron (22/445623) and Borth (22/605888). Another exclusively coastal ground beetle, Trechus fulvus, occurred on brackish river shingle at Tanybwllch and on the shingle beach at Aberaeron (22/465635). Dyschirius politus, a burrowing species that lives in damp sand, was again recorded from the dune slacks at Ynyslas (22/605935) where it was first found in 1988. Coastal habitats also provided two of the most interesting carabids found in Ceredigion last year, the two small intertidal specialists Aepus marinus and A.robini. The former species was discovered on Tanybwllch, where it occurred under stones embedded in silt and sand on brackish river shingle, and at Aberystwyth harbour (22/580807). A.robini only seems to occur in crevices in intertidal rocks where it preys upon the small mites, springtails etc.. which are specialists in this fascinating community. It was recorded from Borth (22/605888), Clarach (22/584801) and Aberystwyth College rocks (22/580817) and is probably widely distributed along Dyfed's coastline.

Elaphrus uliginosus is an extremely localised carabid nationally, though in west Wales it appears to be fairly widespread and occurs in a range of wetlands, generally in association with flushes. A third record for the vice-county was provided by DK Reed, who captured a specimen in flight on the eastern fringe of Cors Caron (22/695631). The ombrotrophic mire specialist Agonum ericeti turned up abundantly once again in pitfall traps on Cors Fochno (22/635915). A.nigrum, another new species for the vice-county, was found on the small saltmarsh remnant in Aberystwyth harbour (22/582812). The handsome, metallic blue and red Lebia chlorocephala is another carabid with a strongly coastal bias to its distribution. JH Salter had a number of records for the species in Ceredigion between 1928 and 1942 but the only modern record is a specimen found on 10 Jan in coastal grassland on Constitution Hill, Aberystwyth (22/583827). The river shingle specialist Lionychus quadrillum did not seem to be as abundant this year as in 1987 and was only seen in small numbers at Ty'n-yr-helyg (22/595765). Perileptus areolatus was found at Lovesgrove (22/632808) and Glandwr (22/605803) on the Rheidol and Clivina collaris was reported from Ty'n-yr-helyg and Tanybwllch (22/583796).

Seven notable water beetles were seen in VC46 during 1988, perhaps the most interesting of which was Ochthebius subinteger, whose habitat is brackish rock pools above high water mark. A few specimens of this species were found in rock crevices towards the top of the shore at Gwbert (22/159500) on 17 October. Its close relative O.auriculatus, another species which favours brackish conditions, was collected from the Dyfi saltmarsh on 13 April. Helophorus arvernicus was collected from river shingle at Rhydyfelin (22/586787) and Pont Llanfarian (22/684713) in April. On a visit to Dyfed in September, Garth Foster surveyed the water beetles of some of the Ceredigion pingos and recorded Helochares punctatus and Enochrus affinis at Cors Gorsgoch (22/483502) and E.coarctatus with E.ochropterus at Nant Cledlyn (22/47-48-). These four nationally notable species were also recorded by Garth in the pingos at Rhos Llaur-cwrt NNR (22/411499) in 1985.

Perhaps the most exciting new beetle record for the vice-county was AP Fowles' discovery of Sphaerites glabratus (Sphaeritidae) in a thin strip of deciduous woodland bordering conifer plantations on the bank of Afon Llyfnant (22/745972) on 16 April. This is a Red Data Book 3 species which, until now, has only been reported from Scotland and northern England. It is usually found in rotting fungi and carrion; the Llyfnant specimen being taken in a decaying bracket fungus. Another good discovery came in the closely-related family Histeridae; a single male Gnathoncus buyssoni was caught in a pitfall trap in Coed Rheidol NNR on 27 June, probably the first Welsh record of this very local woodland species. Its niche is not well-known but in Britain it has been found in fungi and birds' nests, whilst on the continent it is also reported from squirrel dreys.

The rove beetles (Staphylinidae) provided many good records this year, mainly as a result of further investigations into the beetle fauna of river shingle and the assistance of John Owen in identifying the aleocharines. Nine nationally notable species were found in this habitat - Deleaster dichrous (at the mouth of the Afon Clarach and many sites along the banks of the Ystwyth); Hydrosmectina subtilissima (on river shingle at Ty'n-yr-helyg, Glandwr, Glanyrafon (22/614804) and Grogwynion (22/710720)); Hydrosmecta thinobiodes

(Grogwynion); H.fragilis (Pont Gogoyan (22/641548) on the Teifi); Lathrobium angusticolle (Pantmawr (22/611754) and Abermagwr (22/663736) on the Ystwyth); Neobisnius prolixus (Felin Dyffryn (22/654744) and Pant-mawr); Philhygra scotica (excavated from river gravels at Ty'n-yr-helyg); Thinobius bicolor (excavated from gravels at Glanyrafon); and Thinobius newberyi (five specimens were excavated from fine gravels at Ty'n-yr-helyg on 27 August and one from Glanyrafon on 2 October). Other notable species recorded this year were - Phyllodrepoidea crenata (collected from under sycamore bark in mixed secondary woodland at Llanrhystud (22/532683)); Lesteva hansenii (on flushed boulder-clay cliffs at Gwbert (22/162490) on 22 June); Leptusa pulchella (also under sycamore bark at Llanrhystud and at Cilgwyn (22/318415)); Stenus guynemeri (in saturated moss near waterfalls at Coed Cwm Clettwr and Coed Gwenffrwd (22/596595), on 2 & 15 October respectively); and Zyras laticollis (near a nest of the ant Lasius fuliginosus at Plas Gogerddan (22/630838) on 18 April).

Excavation of river gravels also produced several specimens of the pselaphid Biblopectus minutissimus at Grogwynion on 22 August (probably the first Welsh record) and at Glanyrafon in October. Brachygluta pandellei was widespread on river shingle along the Ystwyth but did not occur in such abundance as it did in 1987. Another rare river shingle beetle, the ptilid Ptenidium brenskei, was found at Llanilar (22/629572) on the Ystwyth and at the mouth of the Soden (22/362582).

A dead specimen of the chafer Amphimallon ochraceus was discovered on the coastal cliffs at Gwbert (22/160505) on 22 June. This is another very localised species which is primarily restricted in its British distribution to sea cliffs on the west coast. It may easily be overlooked in suitable habitat, however, as it has a very short flight period of around two hours at mid-day between June and early August (Jessop 1986). The only other notable scarabaeid recorded in 1988 was Aphodius plagiatus, found amongst litter on the upper Dyfi saltmarsh on 22 April.

The tiny cantharid Malthodes flavoguttatus was seen for the first time in Ceredigion on 5 July on a streambank at Dyffryn Castell (22/771813). This species is reputed to be predatory under the bark of oaks; larvae having been reared from oak twigs. Hylecoetus dermestoides (Lymexylidae) is another species associated with dead wood and on 27 June a female occurred in one of the Coed Rheidol pitfall traps. It is a widespread but local species, generally considered to be indicative of ancient woodland with deadwood habitats (Harding & Rose 1986). However, the larvae have been found developing in the dead wood of conifers as well as a wide range of deciduous timber. The pollen beetles (Nitidulidae) are extremely poorly-known in VC46 and the discovery of two specimens of Meligethes subrugosus in flowerheads of sheep's-bit Jasione montana at Cwm Soden (22/363583) was therefore very pleasing.

In addition to its previously known sites, the orange ladybird Halyzia 16-guttata was quite widely recorded elsewhere in Ceredigion during 1988. The new finds were generally in moist dingle woodlands in association with sycamore - these being at Plas Gogerddan, Cwm Soden, Coed Pont Mydr (22/475604), Coed Penglanowen (22/613785), Ynyshir (22/680960) and Coed Cwm Clettwr. Anomalies were of one specimen found on an exotic streamside maple at Plas Gogerddan and a colony in Cwm Woods (22/600833) which was in a much drier woodland than usual, though the site does occupy a shady, north-facing slope. In common with many of the river shingle beetles, five-spot ladybirds Coccinella 5-punctata did not appear to be as abundant in 1988 as they did in 1987 and only small numbers were recorded at sites along the Ystwyth. A new locality for the species was Trecefl (22/673589) on the Teifi, where it was found by John Owen in August.

A species that appeared to be doing well in 1988 was the longhorn beetle Judolia cerambyciformis. This was found at Cwm Llyfnant (22/720795), Coed Penglanowen, Plas Gogerddan, Coed Cwm Clettwr and in Coed Cwm Mydr (22/479587) on dates ranging from 15 May to 26 June. At Cwm Llyfnant, the beetle was spectacularly abundant on the flowers of hawthorn and sycamore. The notable longhorn Strangalia quadrifasciata was captured during the DIG field meeting at Denmark Farm on 9 July amongst a log pile of old willow stumps.

The majority of phytophagous beetles belong to the two large families of the leaf-beetles (Chrysomelidae) and the weevils (Curculionidae). Within the former family, five notable species were collected in 1988. Lamprosoma concolor was found by Keith Alexander in a meadow above Traeth Penbryn (22/291523) on 20 June. Galeruca tanacetii occurred in a garden at Llanfarian (22/584767) and, in more typical wetland habitat, on Silian Common (22/567514) where it was swept from sneezewort Achillea ptarmica. Also at the latter site was the small flea-beetle Longitarsus holsaticus, a singleton of which was found on its foodplant, lousewort Pedicularis sylvatica. More than 500 adults of G.tanacetii were recorded during a survey of Rhos Pilbach (22/367528) in October, many of which were feeding on the leaves of devil's-bit scabious Succisa pratensis. A third wetland chrysomelid encountered was Altica ericeti, whose foodplant is cross-leaved heath Erica tetralix; one was captured in a pitfall trap on Cors Fochno NNR. A single specimen of the handsome Clytra quadripunctata was beaten from bracken on the edge of a small oakwood at Llangorwen (22/653924). The most striking feature of this site is the presence of a large colony of wood ants Formica rufa, the nests of which are frequented by the larvae of Clytra. Amongst the weevils, the most noteworthy records were of Orobitis cyaneus, which was present in numbers on dog violets Viola riviniana on the coast at Pendinas (22/583805), and Mesites tardii, discovered by Dave Clements at Llwynwermod (22/370579), and dead specimens were abundant in the red-rot of an ash pollard in Cwm Cilfforch (22/439616) on 27 December. The latter is a Harding & Rose (loc.cit.) ancient woodland indicator species which utilises a wide variety of decaying hardwoods as a larva. Its distribution is quite markedly western and coastal in Britain and it should be looked for in deadwood in other Ceredigion coastal dingles. One of the strangest records of the year was another Harding & Rose species - Xyloterus signatus (Red Data Book 3) - which was caught in a pitfall trap on the central dome of the raised mire at Cors Fochno; not, one presumes, its natural habitat.

Many thanks to AH Kirk-Spriggs, Dr RS Key, C Johnson, Dr ML Cox and TO Winter who helped to identify 'problem' material and to Garth Foster, Adrian Fowles and John Owen who, along with myself, contributed to the bulk of the records generated during the year.

#### References:

HARDING, PT & ROSE, F (1986) - Pasture woodlands in lowland Britain. Institute of Terrestrial Ecology, Huntingdon.

JESSOP, L (1986) - Dung beetles and chafers (Col; Scarabaeoidea). Handbooks for the Identification of British Insects. Vol 5, part 11. Royal Entomological Society, London.

WHITEHEAD, PF (1988) - A new record of Tachys parvulus and some thoughts on Bembidion quinquestriatum (Col; Carabidae). Ent. Mon. Mag. 124:186.

## **MOLLUSCA**

### **SNAILS AND SLUGS IN CARMARTHENSHIRE, 1988 - IK MORGAN**

A profitable site for the conchologist to visit is the small area of south-facing limestone grassland and scattered pavement at Careg-eidon (22/493136) on the eastern end of Mynydd Llangyndeyrne. Here, during a memorable late afternoon visit on 23 March, several noteworthy records were made. The diminutive species Pyramidula rupestris and Ceciliodes acicula were found - under rocks and soil respectively - whilst, in not inconsiderable numbers on the sunny grassland, was the snail Helicella itala. TW Barker, in his 'Handbook to the Natural History of Carmarthenshire' (1905) gives two localities for this species - the Pendine cliffs (22/20), where it is still frequent, and "on limestone rocks in Llangyndeyrne Parish", in which the Careg-eidon site is located. Six months later, a single live animal of H.itala was found

at the north-eastern edge of the old limestone quarry at Capel Dyddgen (22/467127), but in spite of searching no others (alive or dead) were to be seen. It is worth mentioning that on repeat visits to Careg-eidon, the numbers of H.itala to be seen feeding out on the open grassland varied from none to many; careful inspection being required to find animals hiding under rocks or in thick grass on some days.

Monacha cantiana at Pembrey Forest (22/410009), found by AP Fowles on the August DIG field meeting, was a second record of this species in the vice-county.

Ashfordia granulata is a snail that occurs in various, usually lush base-enriched sites, in the county; new localities in 1988 include the edge of reedbeds or ponds, scrub-covered wasteground (with the superficially similar Trichia hispida), limestone coastal cliff-grassland, and base-flushed woodland. Drier calcareous localities, such as the limestone quarry at Four Roads (22/440094) and the rubbly slopes below Dryslwyn Castle (22/554203), held the tiny Vertigo pygmaea. On the coastal shingle beach at Penrhyngwyn (21/516973), the 'Atlantic' species Cochlicella acuta was to be found, typically sheltering under pieces of wood or the large leaves of sea radish Raphanus maritimus or other crucifers.

Boetgerilla pallens continues to invade all corners of the county, being common at the Careg-eidon H.itala site, on river shingle at Llandovery (22/761348), and in deep woodland at the Sawdde Gorge (22/736223). At this latter locality, its source of introduction was apparent - a pile of rubbish dumped into the gorge, around which Boetgerilla was frequent. A far more discerning woodland dweller is Limax cinereoniger, found in the deep, humid ancient woodland dingle of Cwm Clydach (22/443077). The individual seen was stranded on a mid-stream rock, rescued and placed on a nearby ancient oak. Other woodland snails recorded in 1988 were Zenobiella subrufescens in mats of opposite-leaved golden saxifrage Chrysosplenium oppositifolium at Gelli-wernen wood (22/543055) on 30 October and again, together with Leiostyla anglica and the small, spikey Acanthinula aculeata, in similar habitat at Cwm Gwelr, Cynheidre (22/488077) a week later.

#### LAND MOLLUSCS IN PEMBROKESHIRE, 1988 - AP FOWLES

Although Pembrokeshire lacks any systematic coverage of its molluscan fauna on the scale undertaken in the other Dyfed vice-counties, sufficient information has been gleaned by casual recording from visiting conchologists to suggest that there is plenty of interest within its boundaries. Historically, one of the most important Pembs. records is the presence of Spermodea lamellata, which was discovered by L Lloyd Evans (1958) during a visit to Goultrap Roads (12/843125) on 26 July 1957. This species has a northern and western distribution in Britain, where it is recognised as a good indicator of ancient woodland, and at Goultrap it is near the southernmost limit of its British range. On 1 April 1988, an informal gathering of DIG members visited the hanging cliff oakwoods to ascertain whether Spermodea was still present and a total of twenty-nine species of molluscs were recorded which, with Lloyd Evans records, brings the site total to thirty-five species. During the visit, Spermodea was found in small numbers amongst leaf litter in shallow gulleys dominated by greater wood-rush Luzula sylvatica in the lower part of the oakwood above the cliffs. It was interesting that these gulleys contained none of the other molluscs or plants normally associated with Spermodea in Dyfed woodlands and the microsites were unusually dry compared to its typical habitat of base-enriched flushes. Lloyd Evans also recorded two other ancient woodland molluscs which were not refound in 1988 - Limax cinereoniger and Zenobiella subrufescens - but characteristic molluscs of coastal woods such as Arianta arbustorum, Oxychilus helveticus, Balea perversa and Clausilia bidentata were present.

Another mollusc which is an important member of the Pembrokeshire fauna is Ponentina subvirescens, a 'Lusitanian' species which, in Britain, is found only along the coasts of south-west England and the western tip of Pembrokeshire. Extensive searches in suitable habitat in Carmarthen and Carmarthen, have failed to reveal Ponentina and it does appear that the Pembrokeshire sites are the only Welsh localities. Two specimens were found under prostrate bushes of western gorse Ulex gallii on the coastal heath of St. David's Head (12/727275) during the DIG field meeting on 25 June, although the species is more typically found under tussocks of thrift Armeria maritima and cock'sfoot Dactylis glomeratus on cliff-top grassland. The St. David's peninsula is a well-known locality for the species.

Pembrokeshire also has a significant number of the British colonies of the introduced Mediterranean snail Theba pisana, which was seen this year on the dunes at Stackpole (11/977946) on 27 May and, on the same day, at Freshwater West (11/885996). This latter locality marks a westward expansion of range for Theba and it is interesting that Dr June Chatfield made a thorough survey of the molluscs at this site on 19 July 1978 (when she was in charge of the mollusc collections at NMW Cardiff) and did not find Theba. As Theba is a conspicuous animal it can be assumed that the colony is only recently established, whereas there are indications of slight declines and fragmentation of several of its other Welsh colonies. At Freshwater West it is characteristically associated with stands of alexanders Smyrnum olusatrum and is distributed along both sides of the coast road for some 300 metres. Visiting the colony on 17 July, RH Cowie reported that Helicella itala, a scarce species of dry, calcareous habitats, was the only other snail occurring commonly with Theba.

Pembrokeshire undoubtedly has plenty to offer the conchologist and a great deal of valuable recording work remains to be done. Whilst there is still much to be discovered about the coastal fauna, there is even more to be learnt about species-distribution and community-composition of the molluscs of the woods and wetlands inland. There is now a wealth of good field guides on the market to aid the beginner in this rewarding study and plenty of local expertise to assist with identification problems. Is there nobody in Pembrokeshire willing to take up the challenge?

#### References:

Lloyd Evans, L (1958) - Acanthinula lamellata (Jeffreys) in Pembrokeshire. J. Conch. 24:252.

#### LAND MOLLUSC RECORDING IN CEREDIGION, 1988 - AO CHATER

Increasing familiarity with the habitat preferences of Balea perversa has enabled recorders to find it in ten new sites in 1988, including an isolated old oak at Hafod (22/756731) and one of the biggest oaks in the county on the old Trawsgoed estate (22/667724). Old elms are another favoured site and Balea is also on the two exceptionally large yew trees in Y Ferwig village (22/183495), one of which has a trunk 218 cm in girth. Cecilioides acicula, previously known only from the coastal fringe in churchyards and in a ruined cottage site, was found in two sites on the disused Aberystwyth - Lampeter railway, at Ty'n-y-graig (22/691695) by AP Fowles and AO Chater and on Cors Caron (22/702636) by DC Boyce. Vallonia excentrica is, so far as its natural sites are concerned, also coastal, occurring on sand dunes, shingle and grassland, but it too occurs inland along the disused railway as well as on old mortared walls. A single specimen sieved from moss and litter from a flushed slope by the Nant Brwyno (22/704807) by AOC was considered by MP Kerney to be probably this species rather than V. pulchella (which has not yet been recorded from Ceredigion). Repeated searches failed to produce any more specimens and it remains a surprising record, whichever species it is. Acicula fusca was found in another flush only 100 metres away.

The only new species for the vice-county has been Limax flavus. Nocturnal searches at

Christmas by AOC and APF on Aberystwyth Castle grounds and around Aberaeron and New Quay harbours revealed a number of yellow-spotted slugs. Only the Aberystwyth ones were old enough to dissect in order to positively confirm the identity of the species and these proved to be L.flavus rather than L.maculatus which is known inland in Ceredigion at Mydroilyn and Pontsian. Specimens from Aberaeron and New Quay are being grown-on and are expected to turn out to be L.flavus too. Frequent searches for molluscs at Aberystwyth Castle in daytime over several years have failed to reveal it, and it is clearly a species best found by torchlight on mild, damp nights when it is out foraging.

## ONISCIDEA

### CARMARTHENSHIRE WOODLOUSE REPORT, 1988 - IK MORGAN

A new, but not unexpected locality for Armadillidium album was Laugharne Burrows (22/272073) where, in mid-July, many were found amongst embryo dunes with sparse marram grass Ammophila arenaria and drift debris. A species new to the vice-county is A.pulchellum, a small, shiny, and beautifully-patterned pill-bug, which was discovered under limestone rocks at Careg-eidon (22/493136) on 29 March and, in October, this species was also to be found on adjacent dry-stone walls amongst mats of the moss Hamalothecium sericeum (det. RG Woods). A.depressum was noted at its known regular site in dry limestone scree in a small quarry north-east of Garn-fawr, Drefach (22/534140), where Haplophthalmus mengei was common in the reddish, calcareous soil in late September. Subsequently, H.mengei was found at three other localities - all in calcareous, friable soil - Carmel Woods (22/590163), Dryslwyn Castle (22/554203), and under Festuca rubra-clad soil on the Old Red Sandstone cliffs just south of Llansteffan (22/352100). The five new sites for the related H.danicus were all in humus-rich (thick, leafy compost or rotten wood) microsites, including cherry laurel Prunus laurocerasus litter, a microsite it is already known to favour in Ceredigion.

The small, pink-eyed Trichoniscoides saeroeensis was located at three new coastal sites (one maritime shingle and two on cliffs), whilst in October small white woodlice with pink ocelli were found at the inland disused limestone quarry at Four Roads (22/440094). Unfortunately, the collection only consisted of juveniles, rendering specific identification impossible. Nevertheless, hopes of finding T.sarsi have been raised! Finally, Porcellio spinicornis was common on the rugged west wall of Llansteffan Castle (22/325102) on 19 October.

### WOODLOUSE RECORDING IN CEREDIGION, 1988 - AO CHATER

There have been few surprises in 1988, although additional information on habitat and micro-site preferences continues to be discovered, along with further locality data for some of our scarcer species. The littoral woodlouse, Halophiloscia couchi, normally found deep in rocky storm beaches, was found in driftline seaweed on shingle at Tan-y-bwlch (22/579801) by AP Fowles, and should be looked for elsewhere in this much more easily-worked habitat. Armadillidium pulchellum was found in another inland site by AO Chater, this time on an entirely natural acidic rock outcrop near Moeddyn-fach, Gorsgoch (22/475513). Porcellionides pruinus was found in a manure heap at Plas Gogerddan (22/626838) by DC Boyce; it seems that this species (which is now known from six tetrads) is genuinely rare in Ceredigion. Trichoniscoides saeroeensis is now known from ten tetrads along the coast but is probably much commoner than this suggests and finding it seems to depend very much on the correct damp soil and weather conditions.

## MYRIAPODA

### MILLIPEDES AND CENTIPEDES IN DYFED, 1988 - IK MORGAN

As a comprehensive account of the myriapods to be found in south-west Wales now exists (Morgan 1988) it is practical to review interesting records for the three vice-counties of Dyfed on an annual basis.

A species that always arouses interest when found is the tiny (<3mm) 'bristle millipede' Polyxenus lagurus, a very unusual looking species as it is clothed in bristles or setae. It was found on several occasions in 1988, in two separate types of micro-habitat. Coastal situations were - the cliffs of Allt-wen (22/574795, VC46) in late March (DC Boyce); several Spring records from shingle at Penrhynwyn (21/517974, VC44); maritime cliffs at Goultrap Roads (12/845123, VC45) on 1 April; Aberystwyth Castle grounds (22/579816, VC46) on 30 May (AO Chater); under the moss Bryum capillare on cliffs at Tregonning Hill, Ferryside (22/362086, VC44) in October; and under slaty rocks at Cwm Cilfforch (22/439617, VC46) on 27 December (AOC). There were also two woodland records of the species, where it is typically found under loose bark - Coed Allt Lan-las (22/475604, VC46) on 21 May (AP Fowles); and Henllan (22/359403, VC46) on 11 September (DCB).

Nopoiulus kochii, a small white blaniulid, which is considered to be nationally rare, was still to be seen (records suggest that it is mostly an autumn-winter species) under stones on wasteground at Machynys (21/511987) in late March. Another rare millipede is Thalassiosobates littoralis, which was abundant under stones near High Water Mark at Penrhynwyn at the end of the same month. Until then, repeated searches of this site (where the species was last seen in September 1986) had failed to produce specimens - evidence of the unpredictability of invertebrates.

The small, white Brachychaetuma melanops is easily overlooked, being mistaken perhaps as the immature stadia of other millipedes. Since an appreciation of its habitat requirements and appearance have been established, the writer has found this supposedly rare species on many occasions - in gardens, wasteground, open calcareous woodland, and even stabilised river shingle grassland. Although records exist for Carmarthenshire, none refer to Pembroke or Ceredigion, where this species is likely to be found. As there are two extremely similar species in the same genus, several specimens should be collected and carefully checked.

The scarce woodland millipede Cylindroiulus londinensis was frequent in mossy litter alongside the Afon Llyfnant above Glaspwll (22/742974, VC46) on 16 April and again, further downstream (22/719973), on 15 May (APF & AOC). At present, the Llyfnant valley is the only known locality for this species in Ceredigion and it appears to be genuinely rare in Dyfed as a whole. Woodlands also provide a home for Craspedosoma rawlinsii, especially if the woodland is wet; the species being almost invariably found in the wetter situations such as flushes. A new locality for Craspedosoma was at Gelli-wernen wood (22/543055, VC44) on 30 October, where it was found in a wet flush with opposite-leaved golden saxifrage Chrysosplenium oppositifolium, reed canary-grass Phalaris arundinacea, etc..

A speciality of south-east Carmarthenshire is the millipede Leptoiulus belgicus which (apart from a record in nearby west Glamorgan) is principally found in south-west England. In Carmarthenshire, it normally frequents synanthropic situations, but in early September it was found in rich humus in poor-fen at Penybedd, Pembrey (22/416019) its first semi-natural site in the county - though even here houses are not very far away. Leptoiulus is mostly an autumn-early winter millipede.

The last of the interesting 1988 millipede records was the extremely diminutive (max. length 4mm and as thin as a nematode worm) Macrosternodesmus palicola,

which was found - new to Pembs - in calcareous, rubbly litter at the base of Manorbier Castle (21/064977) on 6 December. Its small size earned it an alternative scientific name of Titanosoma - as Blower (1985) points out, applied "with a touch of humour".

As well as the review of myriapods in south-west Wales mentioned above, the centipedes have the extra advantage of an additional summary of their status and distribution in Dyfed (Barber 1988), to which readers are referred. This account included the important find of Lithobius tenebrosus at Constitution Hill, Aberystwyth (22/583826, VC46), where a female was collected from a rock crevice in the splash zone on 9 April. This is only the third British record of this centipede (which was first reported from northern England at the beginning of the century) and the first authenticated specimen. The review also reported Cryptops parisi and Geophilus osquidatum new to Ceredigion, the latter also being new to Dyfed. In late April, APF also found C.parisi in his garden at Llanfarian (22/584767, VC46). This species is larger than the commoner C.hortensis and as the hind (last) pair of legs are a great help in identification it is important that they are not shed by the escaping animal. C.parisi is often found in synanthropic situations and was also recorded at two new localities in Carms during 1988.

#### References:

BARBER, AD (1988) - Dyfed Centipedes. DIG Newsletter 10:1-9.

BLOWER, JG (1985) - Millipedes. Synopses Br. Fauna (New series) No.35. Linnaean Soc. & Estuarine and Brackish Water Sciences Assoc. London.

MORGAN, IK (1988) - Recent recording of Myriapods in south-west Wales. Bull. Br. Myriapod Group. 5:11-20.

#### **ARANEAE**

##### SPIDER AND HARVESTMAN RECORDING IN DYFED, 1988 - KM CATLEY

The highlight of the year was the re-discovery of the purse-web spider Atypus affinis in Pembrokeshire; Adrian Fowles (APF) and myself found a total of twenty-seven webs at Trwynhwrdyn, St David's Head (12/732273) on 25 June (see Coker 1988). They were on the south-facing cliff of the headland in an area only 20 metres long on wind-blown sand which overlies the boulder-clay immediately above the bare rock of the inter-tidal zone. The webs were concealed beneath tussocks of red fescue Festuca rubra and thrift Armeria maritima with ribwort plantain Plantago lanceolata, rock samphire Crithmum maritimum and kidney vetch Anthyllis vulneraria. Atypus is a very local southern spider and the only British representative of the primitive sub-order Mygalomorphae. In Wales it is only known from a total of three sites where it finds a warm, south-facing bank with a friable substrate and suitable vegetation cover. Here it constructs an extremely well-hidden purse-web which is up to nine inches long. The distribution of Atypus is constrained by micro-climatic and physical factors; furthermore, it has an extended life-cycle, taking four years to attain sexual maturity and then reproduces annually for a further four years or so (Bristowe 1958). For these reasons, the animal must demand a high conservation profile and every effort must be made to safeguard this site.

The theridiid Episinus angulatus was recorded as new to Cards from immature specimens collected at Mwnt (22/196521) by APF. It was found to be numerous amongst arable weeds at the edge of a field on 24 September. This attractive spider is a specialist feeder on ants and uses its very reduced web as a spring trap to catch individual animals crawling on the ground. Having by necessity to be close to the substrate, it is often missed when sampling by conventional methods (ie. sweeping) and I suspect it to be widespread throughout the county. Another spider recorded as new to Cards from an immature specimen by APF was the unmistakable orb

weaver Cyclosa conica. It was found on the riverbank of the wooded gorge of the Afon Leri (22/643880) in October. Cynthia Merrett found another orb weaver Araneus sturmi, which was new to Carms, while collecting in Dinefwr Deer Park (22/61-22-). Although widespread in Britain, in Wales it has previously only been recorded from Radnorshire and is a local and uncommon spider. It is small (5mm) but strikingly patterned and prefers to build its orb web on evergreen trees. The money-spider Ceratinopsis romana is confined to sand dunes and is thinly distributed around southern coasts. IK Morgan found it at Pembrey Burrows (21/41-99-, VC44) on 31 March, and a few days later APF found a female under a stone in a dune slack at Ynyslas (22/605934, VC46). While searching the strand-line for aeronaut spiders on the saltmarsh on Dyfi NNR (22/628935, VC46) during April, Erigone longipalpis was found to be abundant beneath the surface crust of the saltpans. Obviously at home, and well able to withstand tidal inundation, they appeared to be feeding on the large numbers of Collembola present. This is one of the less common members of the Erigonidae and was a new vice-county record for Cards.

Gongylidellum latebricola has only been found in the north-east of Wales, although it is widespread but uncommon in Britain as a whole. It was taken in a pitfall trap set in sessile oak woodland in Coed Rheidol NNR (22/747781, VC46) during September 1988. The hanging coastal oakwoods of Goultrap Roads (22/845124, VC45) provided another interesting spider during a field meeting in April. The linyphiid Pelecopsis nemoralis was taken in leaf litter and proved to be a new county record for Pems. It is probably widespread although it is only rarely recorded.

The infrequent cavernicolous money-spider Thyreosthenius parasiticus was collected from within the rotten heartwood of an ancient tree at Hafod (22/756761, VC46) by APF in April. It is regarded as an ancient woodland indicator species but also frequents mines and sewers. Caernarvonshire was the only vice-county in Wales in which it had previously been recorded. Walckenaeria obtusa is very patchily distributed throughout Britain and in Wales was only known from the north. It was found in moss on the banks of the Afon Llyfnant (22/744972, VC46) in April and was a new county record. Maro minutus is a tiny (1.8mm) money-spider which, although widespread, is rarely recorded in Britain. Interestingly, it was found under a stone in an upland habitat at Cam Fawr, Tregaron (22/708572, VC46) at 1600' and was also new to the vice-county.

Further surveys of river shingle in 1988 showed the impressive Arctosa cinerea to be widely distributed along the banks of the Afon Ystwyth, Cards, from Tanybwllch (22/581799) at the mouth of the river to Cwmystwyth (22/784739) at 190m a.s.l. Caviphantes saxetorum was found at two new sites on the Ystwyth - Tanybwllch (22/580801) and Wenallt (22/673721) - by turning over boulders embedded in fine gravels on shingle banks. Agroeca striata was recorded again from river shingle (cf. Catley 1988), this time a female was taken at Glanystwyth (22/638749, VC46).

The rare harvestman Sabacon viscayanum has been found in another Cards locality - amongst Polytrichum moss tussocks in an oak/ash semi-natural woodland at Lampeter (22/577497). The animal was located by torchlight on 9 December and appeared to be sub-adult. Sabacon has also turned up at another site in Carms, in base-rich woodland alongside the Afon Gwydderig (22/804346), it was collected as an immature by that intrepid recorder APF again. The northwardly-moving opilionid Dicranopalpus ramosus was recorded on three occasions during 1988; on the outside wall of a house in Aberystwyth (22/589822, VC46) in October and IK Morgan found it at Llwynhendy (21/537993, VC44) on 29 July and also at Penybedd wood (22/417017, VC44) on 20 August. These animals are most often associated with the walls of houses and their unmistakable resting profile makes them easy to identify. Since its discovery in Ceredigion at Coedmore in 1987 (Catley 1988), Anelasmoecephalus cambridgei has been found at two more sites in the vice-county - in woodland at Coed Nant Llolwyn (22/588770) and, rather unexpectedly, amongst decaying vegetation in a coastal flush at Craig Coybal (22/367589) on 31 December. IK Morgan also recorded the

animal at Ty'r-garn farm (22/503142, VC44) in base-rich ash/hazel woodland and north-east of Garn-fawr (22/534150, VC44) in soil on the scree slope of an abandoned limestone quarry on 27 September. It would appear that this splendid beast is rather widespread in west Wales, but its cryptic habits make it difficult to locate.

#### References:

BRISTOWE, WS (1958) - The World of Spiders. New Naturalist No. 38. Collins, London. Pages 70-78.

CATLEY, KM (1988) - Spider and Harvestman recording in Dyfed, 1987. Dyfed Invertebrate Group Newsletter 9:23-26.

COKER, SJ (1988) - Field meeting - St David's Head & Whitesands Bay (12/733277) VC45, 25 June 1988. Dyfed Invertebrate Group Newsletter 10:16.

#### MISCELLANEOUS RECORDS FROM THE SMALLER ORDERS, CEREDIGION 1988 - AP FOWLES

There were a few records this year of interesting species in invertebrate Orders that are not covered elsewhere in this annual report.

MECOPTERA - A single specimen of the curious snow-flea Boreus hyemalis was found on the stabilised shingle bank of the Afon Ystwyth at Grogwynion (22/717721) on 14 February. The only previous record of this species in Ceredigion was nearby at Llanafan in 1970 (PM Miles, pers. comm.). Over in Powys, Ray Woods seems to be able to find snow-fleas at will when he is looking at mosses and lichens and it may prove that this is a widespread inhabitant of mossy areas in mid-Wales.

NEUROPTERA - The giant lacewing Osmylus fulvicephalus was seen at two sites this year - Cwm Soden (22/367578) on 20 June by Dave Clements of the National Trust Biological Survey; and one was captured in a moth-trap near Llanfarian (22/584767) on 8 August. These are probably the first county records of this impressive species, which should be widely distributed in our dingle woodlands.

HEMIPTERA - The handsome black-and-red bug Alydus calcaratus was found in small numbers on the shingle heath at Llanddwy (22/650745) on the banks of the Ystwyth on 26 Sept. This is a localised inhabitant of heathlands in southern Britain where a colony typically occupies just a few square metres in an apparently uniform expanse of habitat. Pachybrachius fracticollis and Sorhoanus xanthoneurus were both found on the unburnt part of Cors Fochno (22/635915) in mid-summer (three specimens of each species). Both of these hemipterans are associated with grasses and sedges growing on bogs but S.xanthoneurus has also been found in a woodland clearing in Scotland; in this respect it is interesting that one was taken in a pitfall-trap in Coed Rheidol NNR (22/741778) on 2 Sept in an area of the wood which has been recently thinned.

PSEUDOSCORPIONES - Whilst sampling intertidal crevices for specialist carabids, DC Boyce found a single Neobisium maritimum at Clarach (22/584801) on 15 April and three specimens were found in similar habitat on Aberystwyth College Rocks (22/580817) on 23 October. This species has a restricted world distribution and is only known from the coasts of Ireland, western France and south-west Britain. For a long time it was thought that only two species of pseudoscorpion, the common N.muscorum and Chthonius ischnocheles, occurred in Ceredigion but by the end of 1988 the county list had risen to seven, chiefly as a result of AO Chater's investigations. The additional species to those mentioned above

are Roncocreagris cambridgei, Roncus lubricus, Allochernes powelli and Dinocheirus panzeri. A future article in the DIG newsletter will discuss these discoveries along with habitat preferences and sampling techniques.

## **SIPHONAPTERA**

### **WELSH FLEAS PLEASE: A REQUEST FOR RECORDS - RS GEORGE**

I am aiming, eventually, to write a paper on the fleas of each of the Welsh vice-counties but in the meantime I hope to produce an article on the fleas of Carmarthenshire, Pembrokeshire and Cardiganshire for the DIG Newsletter later this year. The present total for each of the vice-counties is - Carmarthen 9 species and sub-species, Pembroke 29, and Cardigan 26. Twelve species are recorded from both Skokholm and Skomer and five are known from Ramsey. Many of these records are old, several species have only one or two records, and most of the 10 km squares have no flea records at all. Please send in any quantity of fleas, from any host from anywhere, for identification. If specimens are to be returned, please say so - otherwise they will be added to my collection. Your cat, dog, hedgehog in the garden, nest boxes, mouse nests and so on, even yourself!, are all possible sources. Send specimens to - RS George, 54 Richmond Park Avenue, Queen's Park, Bournemouth BH8 9DR.