

DYFED INVERTEBRATE GROUP



NEWSLETTER N^o. 3

Sept 1986

In many respects 1986 has proved to be an extraordinary year for invertebrate conservation in Dyfed - of which I'm pleased to say that the formation of the Dyfed Invertebrate Group has been a minor part. Articles referring to invertebrates in west Wales traditionally opened with a phrase recounting how little was known of the Dyfed fauna - but the tide may be turning at last. During 1986 a number of major surveys of invertebrate populations have been initiated and when the results are all in we should be in a clearer position to assess the status and needs of many groups.

The National Trust has embarked upon a thorough survey of the fauna of Dowrog Common, a nationally important heathland, in order to formulate a broad-based management plan. The RSPB, in the Brecon Beacons and the Cwm Ystwyth/Afon Tywi uplands, has been sampling stream invertebrates to evaluate the impact of acidification upon the breeding success of Dippers. In Pembrokeshire the NCC have collected pitfall samples from a number of lowland wet heath sites to gain an understanding of the impact of different management practices on the invertebrate fauna and in Cardiganshire they have begun a similar project on a range of peatlands as part of a four-year study of invertebrates on Welsh wetlands. Pitfall traps are also in operation on Cors Fochno and Cors Caron NNRs, providing an interesting comparison between the inhabitants of these two raised mire systems. The visit of the Diptera Recording Group to Carmarthenshire in July yielded many interesting observations and much valuable information on species-distribution. There have also been a growing number of insect-orientated guided walks for the WWTNC and the Mid-Wales Festival of the Countryside - clearly the wonders of insect natural history are no longer the province of the specialist alone.

Much is being done but there is still much left to do. Dyfed is a vast county with few naturalists and your help is required to provide the information on which the conservation bodies can act. Get out into the field and record what you see; try broadening your horizons and taking on a new group - your DIG representative can advise you on the best way to approach this; and send in your records to the county recorders. Communication of your findings is one of the most important steps in conservation - use the DIG Newsletter to record your results for the benefit of future naturalists.

In a similar vein, let me remind you that 1986 sees the conclusion of the Dragonfly Recording Scheme in its present format. Records for inclusion in the final Atlas should be sent to the Biological Records Centre (preferably via the county recorders) by 1 November. Excellent coverage has already been achieved in Dyfed but there are still a few gaps to be filled in.

Editor - A P Fowles, c/o NCC, Plas Gogerddan, Aberystwyth, Dyfed SY23 SEE.

DYFED SITE REPORT - Number Two

SKOKHOLM, PEMBS (12/736050) - A P FOWLES

Skokholm Island, lying three kilometres west of Marloes on the Pembrokeshire coast, is one of the jewels in Dyfed's crown. It is a relatively flat island composed of Old Red Sandstone rocks amounting to 106 hectares in extent and approximately 1.6 kilometres long, the vegetation is modified by the compounding effects of wind, salt-spray, rabbit-grazing, and nutrient enrichment from seabird guano. An extensive band of Thrift Armeria maritima with pockets of bright blue, Spring Squill Scilla verna along the southern and western coasts gives way to a Fescue-dominated sward on the plateau grasslands. Bracken Pteridium aquilinum is steadily encroaching over the eastern half of the island and is invading the remnants of maritime heath as the Heather Calluna vulgaris deteriorates. Springs and seasonally-inundated depressions on the boulder clay in the centre of the plateau contain small marshes.

It is the internationally important seabird colonies on Skokholm that the island is renowned for - 36,000 pairs of Manx Shearwaters, 6,000 pairs of Storm Petrels and 2,000 pairs of Puffins, together with 4,500 pairs of gulls (chiefly Lesser Black-backed). The seabirds exert a great influence upon the flora and fauna but despite this there is much of interest amongst the invertebrates. Several groups have been extensively studied, notably the Coleoptera and Macrolepidoptera, and numerous species confined to the rocky, western coasts of Britain have been identified as resident. The beetles were mainly surveyed in the 1950's (Green et al, 1951) and to date about 215 species have been recorded from Skokholm. Coastal ground beetles are well-represented and include the tiny Aepus robini which inhabits crevices in the intertidal zone, Notiophilus quadripunctatus and Synchus nivalis which hunt over sandy and gravelly areas, and Chlaenius nigricornis which has been found under stones by the North Pond. The seasonal abundance of carcasses accounts for the presence of the local sexton-beetle Necrophorus interruptus whilst rabbit dung must keep the scarabaeids Typhaeus typhoeus and Aphodius ictericus busy. Trox scaber, another scarabaeid, occurs in Wheatear's nests but must also inhabit Shearwater burrows. Several scarce weevils have been recorded and the tortoise beetle Cassida hemisphaeria was taken on Sea Campion Silene maritima in 1948 and 1949.

R M Lockley established the first British Bird Observatory on Skokholm in 1933 and, until the closure of the Observatory in 1976, the island made a significant contribution to the study of bird migration in Britain. Insect migration has not gone unnoticed and the only British record of the spectacular American moth Utetheisa pulchella is from Skokholm in July 1948 (though this may have been passage-assisted). The Yellow-winged Darter Sympetrum flaveolum (Odonata) captured on 29 August 1955 was an authentic immigrant; this was a year when several were observed in southern England but it is very rarely seen in Wales.

A substantial list of macro-lepidoptera has been compiled (Lawman, 1979) and eleven species are considered to be nationally scarce. These are, predictably, all of coastal origin and include the cliff-dwelling Black-banded Polymixtis xanthomista and Thrift Clearwing Bembecia muscaeformis, and the lichen-feeding Marbled Green Cryphia muralis and Hoary Footman Eilema griseola. Twenty-three species of butterflies have been reported but only eleven are regarded as common and the Dark Green Fritillary Argynnis aglaja is believed to have become extinct through over-collecting.

The effects of isolation on invertebrate morphology has attracted the attention of taxonomists and naturalists to many islands and Skokholm has its share of interesting forms. Samples of the Common Field Grasshopper Chorthippus brunneus have been shown to be significantly smaller than their mainland counterparts and the Common Earwig

Forficula auricularia has exceptionally long male cerci. The Violet Ground Beetle Carabus violaceus on the island is referable to the variety asperipennis, which has a pronounced elytral sculpture and is usually found along the English south coast.

Other groups, such as the spiders and springtails, have also been well-studied on Skokholm but there is undoubtedly much scope for further research. The island is leased to the West Wales Trust for Nature Conservation and accommodation is available for week-long stays throughout the summer. Alternatively, day-trips are run from Dale - contact WWTNC for details.

References:

A comprehensive list of entomological papers relating to Skokholm is contained in A bibliography of the entomology of the smaller British Offshore Islands by K G V & V Smith (1983) E W Classey Ltd. Listed below is a selection of the more significant papers:

BRISTOWE, W S (1935) - Spiders of Skokholm (S. Wales) with notes on a Phalangid new to Britain. Proc. Zool. Soc. Lond. **2**: 233-239.

DUNCAN, C J (1960) - The Grasshoppers of Skokholm Island. Entomologist 93: 25- 26.

FOX, M W (1957) - The Trichoptera of Skokholm. Ent. Mon. Mag. 93: 40-41.

GOUGH, H J (1971) - A preliminary survey of the Collembola of Skokholm. **Field Studies** 3; 497-504.

GREEN, J et al (1951) - The Coleoptera of Skokholm Island. Ent. Mon. Mag. 87: 196-199.

LAWMAN, J (1979) - Skokholm Lepidoptera. Nature in Wales. 16:166-170.

SMITH, K G V (1950) - Diptera on Skokholm and Grassholm in 1950. Rep. Skokholm Bird. Obs. 1950: 24-28.

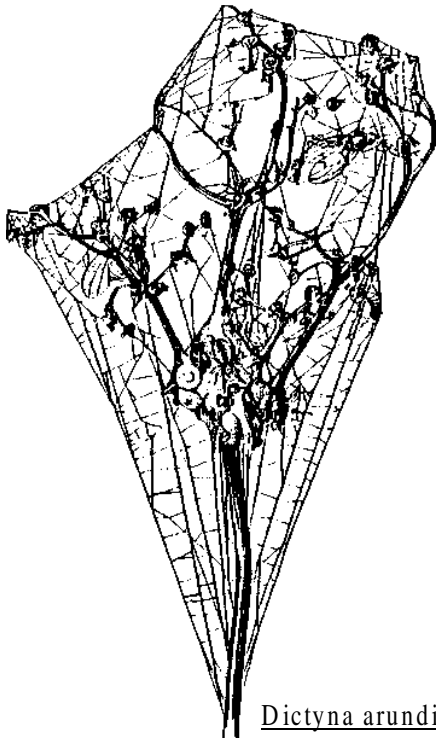
STANSFIELD, G (1955) - The Fleas of Skokholm Island. Ent. Mon. Mag. 93: 196-201.

ARANAEA

THE SPIDERS OF CORS CARON (SN69-64-), CEREDIGION - K CATLEY

Since September 1985 I have been engaged in a survey of the spider fauna of Cors Caron National Nature Reserve. This very neglected group have been poorly represented in the past with little work having been carried out in Ceredigion, or indeed in Dyfed as a whole. The eminent arachnologist G H Lockett visited Cors Caron in August 1957 and recorded 30 species and R J Parker added a further two in 1963. At present the species list stands at 92.

Cors Caron is an area of some 800 hectares in the upper Teifi valley, lying between Pontrhydfendigaid and Tregaron. It comprises three raised bogs - the NE, SE and West - and is bisected by the river Teifi. Of the three, the West Bog is the best preserved and least disturbed by peat cutting and fire damage. As a group, the opportunist spiders exploit almost every habitat and on the bog they particularly occur in the following zones. Sphagnum (down to a depth of 12 cm), Ground level (in litter, grass and heather roots), Molinia (both at the base of tussocks and higher up in the stems), Reed grass (on the Teifi flood plain). Heather (with web spinning taking place at the tops of plants), and finally Trees (on foliage of birch, alder and willow in the peripheral Carrs). In all, I have recorded some sixteen families occupying all of the habitats outlined above.



Dictyna arundinacea

The vegetation of the raised bog proper does not normally grow over 25 cm and consequently spiders of the family **Araneidae** (the orb web spinners) are limited to species which build at the lower levels. Here we can find Agalenatea redii (both the typical form and the variety δ), Lariniodes cornutus, Hypsosinga pygmaea - a local species, Araneus quadratus and Singa hamata. Singa hamata is an extremely local spider and Cors Caron is the only known site for the species in Wales. It is a very handsome spider with distinct cream abdominal markings on a sepia background, and is easily recognisable in the field. The web is spun at the top of heather and grasses and later in the year is to be found with the pinkish egg cocoon. Singa, I am happy to say is plentiful on all three bogs and appears to be thriving.

In the recolonised peat cuttings of the SE Bog We find a much taller growth of heather, particularly on the banks; here the **Araneidae** population comprises

such species as Araneus diadematus (the common garden spider), Metellina segmentata and M. mengei. Another common but very interesting little spider is Dictyna arundinacea which builds its unmistakable veil web on the tops of heather all over Cors Caron. D. arundinacea belongs to the Cribellate group of spiders who secrete and spin their silk in a special way. As well as the normal spinnerets they possess an organ called the Cribellum, which produces an incredibly thin silk (one hundredth as thin as normal orb web silk). This silk, which although not coated with glue, is intrinsically sticky because of its fineness, and is almost like a spider Wool. It is carded by special bristles on the metatarsus of leg IV (the calamistrum) to produce the characteristic bluish web of the cribellates.

Often very large flying insects are to be found in the web of D. arundinacea which could not be caught by the normal 'sticky' webs of the orb weavers. Although only 3 mm long, they will tackle any large flying insect that blunders into their snare.

The vast areas of Molinia on the rand and recolonised peat cuttings of the SE Bog provide a home for many species including members of the family **Clubionidae**. These undistinguished, medium-sized spiders all tend to be of the same brown colour with no pattern and are consequently difficult to identify in the field. They build their characteristic egg sacs by folding over the end of a blade of grass, a habit to which Molinia lends itself particularly well; these can be seen in great abundance from July onwards. The species so far recorded include: Clubionia reclusa, C. stagnatilis, C. trivialis and C. diversa.

The wet ground layer of the West Bog seems to be favoured by another interesting spider - the Theridiid, Euryopis flavomaculata. Normally members of the **Theridiidae** are spinners of tangled three dimensional webs, but E. flavomaculata appears to have abandoned web-making all together in favour of an active hunting life. They appear to have developed a liking for ants in particular, as well as other small arthropods. Although widespread in Britain it is considered to be rare and until discovered on Cors Fochno recently, Cors Caron was the only Welsh site. Another very local Theridiid found amongst the moss of the West Bog is Robertus arundineti, a spider with very limited distribution in Wales. Finally, before we leave the Theridiids, if your interest is in birds instead of spiders and you visit the observation tower on the railway walk, the spiders in great profusion in the roof trusses are Steatoda bipunctata. This is a common spider around houses and appears to be doing a grand job keeping down the flies in the hide!

The crown of the West and South East Bogs are also home to three local species of the family **Hahniidae** Antistea elegans, Hahnia helveola and Hahnia pusilla. These very small spiders, 3 mm, are related to the familiar house spiders, and they build tiny sheet webs in the Sphagnum and detritus. At the other extreme of size, in the family **Gnaphosidae**, we find two fierce nocturnal hunters, Drassodes lapidosus and Haplodrassus signifer - the former measuring in at between 15 and 20 mm. Neither species show a particular preference for wet areas but both are obviously doing well during their nightly prowls of the West Bog.

Mention must also be made of the only member of the family **Salticidae** (the jumping spiders) I have found on Cors Caron. Neon reticulatus is found commonly all over the bog in deep wet Sphagnum and seems to show a remarkable habitat tolerance as I have also found the species under limestone scree high on the North Yorkshire moors!

The **Lycosidae** (wolf spiders) are to be found in great abundance on the bog and comprise the species of Pardosa amentata, P. pullata, P. nigriceps and Trochosa terricola. In the wetter areas we find Pirata piracticus, Arctosa leopardus and Pirata uliginosus, the last two being of limited distribution in Wales. These are the daytime hunters who build no snare but are extremely active, particularly in sunshine.

Few people realise that the **Linyphiidae** (money spiders) comprise some two-fifths of the total British spider list of 620. These small spiders average only 2.5 mm, and due to their small size and general lack of distinguishing marks, particularly in the sub family Erigone, can be very difficult to identify. Many species of this family can only be found by grubbing about in the Sphagnum and mosses where they build small sheet webs. In the main, their prey would comprise Collembola, small Diptera and other spiders. Sphagnum is an extremely important microhabitat on the bog, providing remarkably stable temperatures and humidity levels for most of the year. Mature adults of many species can be found throughout the winter in this habitat. Some of my more interesting finds amongst the **Linyphiidae** are:

Walckenaeria nodosa - a spider of moss in woods and marshes, widespread in Britain but very local with limited distribution in Wales.

Walckenaeria atrotibialis - found in moss and grass and although it has a wide distribution is very local in Wales. Field identification is fairly easy in this species as the black head contrasts sharply with the orange carapace, and the tibia of legs I and II are also clearly marked with black.

Walckenaeria kochi - this spider was also recorded by Lockett in 1957 and seems to be thriving in the Sphagnum of the SE and West Bogs; it is mainly a northern species and very local.

Baryphma pratensis - I was lucky to find a male and female of this rare spider, deep in a clump of Molinia on the rand of the West Bog in early May; it is a spider of wet river meadows but it is also found in Sphagnum and has not previously been recorded in Wales.

Silometopus elegans - this tiny spider, 1.5 mm, was taken in a pitfall trap on the crown of the West Bog. It is found in wet marshy areas, and has a very limited Welsh distribution.

Taranucus setosus - again this spider has very limited distribution, and is found in swampy areas but on Cors Caron it can be found amongst the roots of heather also. This spider is quite striking and can be identified in the field by its barred abdomen and very long legs.

Allomengea scopigera - a spider of wet areas but with limited distribution in Wales, a mainly northern species in Britain.

Allomengea vidua - very similar to the last species but its distribution is mainly to the north and east of Britain. It was found for the first time in Wales, fairly recently, at the Kenfig Nature Reserve in Mid Glamorgan. Both species were found in reed grass on the Teifi flood plain.

In all, over 50 species of Linyphiids have been recorded from Cors Caron.

Recording the spider fauna of Cors Caron has proved a worthwhile and pleasurable experience, and with its rich diversity of micro-habitats there are still many more yet to be found. To date it has provided 25 new records for Ceredigion and three spiders new to Wales - Euryopsis flavomaculata, Singa hamata and Baryphma pratensis.

Should anyone wish to send spiders for identification, particularly from Ceredigion, I will be pleased to receive them in a tube of 70% alcohol with relevant details. Finally I should like to express my sincere thanks to John Davis, the Warden, for all his help and encouragement.

Family Dictynidae

Dictyna arundinacea

Family GnaphosidaeDrassodes lapidosus
Haplodrassus signifer**Family Clubionidae**Clubiona reclusa
Clubiona stagnatilis
Clubiona diversa
Clubiona trivialis**Family Liocranidae**

Scotina gracilipes

Family Zoridae Zora

spiniimana

Family Thomisidae

Xysticus cristatus

Family PhilodromidaePhilodromus aureolus
Tibellus oblongus**Family Salticidae**

Neon reticulatus

Family LycosidaePardosa pullata
Pardosa amentata
Pardosa nigriceps
Trochosa terricola
Arctosa leopardus
Pirata piracticus
Pirata uliginous**Family Pisauridae**

Pisaura mirabilis

Family HahniidaeAntistea elegans
Hahnia helveola
Hahnia pusilla**Family Theridiidae**Euryopsis flavomaculata
Steatoda bipunctata
Theridion bimaculatum
Theridion pallens
Robertus arundineti
Pholcomma gibbum**Family Tetragnathidae**Tetragnatha extensa
Pachygnatha clercki**Family Metidae**Metellina segmentata
Metellina menzei
Zygiella x-notata
Zygiella atrica**Family Araneidae**Araneus diadematus
Araneus quadratus
Lariniodes cornutus
Nuctenea umbratica
Agalenatea redii
Hypsosinga pygmaea
Singa hamata**Family Linyphiidae**Ceratinella brevipipes
Ceratinella brevis
Walckenaeria acuminata
Walckenaeria antica
Walckenaeria nodosa
Walckenaeria atrotibialis
Walckenaeria nudipalpis
Walckenaeria unicornis
Walckenaeria kochi
Dicymbium nigrum
Gnathonarium dentatum
Dismodicus bifrons
Hypomma bituberculatum
Baryphyma pratensis
Gonatium rubens
Maso sundevalli
Pocadicnemis pumila
Oedothorax tuberosus
Pelecopsis menzei
Silometopus elegans
Tiso vagans
Lophomma punctatum
Micrargus herbigradus
Savigna frontata
Diplocephalus permixtus
Erigone dentipalpis
Erigone atra
Leptorhoptum robustum
Drepanotylus uncatulus
Halorates distinctus
Aphileta misera
Agynta decora
Centromerus dilutus
Tallusia experta
Saaristea abnormis
Macrargus rufus
Bathyphantes approximatus
Bathyphantes gracilis
Bathyphantes parvulus
Kaestneria pullata
Taranucens setosus
Lethyphantes tenuis
Lethyphantes zimmermanni
Lethyphantes cristatus
Lethyphantes menzei
Lethyphantes ericaeus
Microlinyphia pusilla
Allomengea scopigera
Allomengea vidua

FIELD MEETING - GWAUN GARTHENOR A LLANIO-ISAF (22/635556) VC46, 5 JULY 1986 - A P FOWLES

This complex of wetland habitats on the flood-plain of the Afon Teifi proved to be a suitable venue for the second DIG field meeting of the year as the variety of vegetation types supported a wide range of invertebrates with enough to interest all present. Much of the site is composed of a sedge-rich flood-plain mire with peripheral Alder *Alnus glutinosa* and Grey Willow *Salix cinerea* carr and there are also areas of Sharp-flowered Rush *Juncus acutiflorus* poor-fen and a small basin mire set in a pocket of wet heath.

A distinguished group of twelve DIG members gathered on an overcast but promising morning and after enduring a potted history of the site went their own ways to survey their own particular groups. Previously there had been few records of invertebrates from Garthenor although Arthur Chater had carried out a comprehensive survey of the molluscs and identified the presence of *Vertigo lilljeborgi* on the flood-plain. During the meeting he confirmed that this species of whorl Snail has a strong population amongst *Juncus* litter on the mire - the Teifi valley represents the southern limit of its range in Britain. Two other whorl snails, *Vertigo antivertigo* and *V. substriata*, were recorded amongst the twenty-seven species identified - both of which are considered as indicators of undisturbed wetland habitats.

The strong Dipterist presence at the meeting resulted in a comprehensive list encompassing a broad range of families. Alan Stubbs recorded an impressive total of forty-two species of craneflies, including the nationally scarce *Limnophila abdominalis* and *Pilaria meridiana*. In the absence of "squidge" he turned his attentions to lacerating Marsh Thistle *Cirsium palustris* but all was revealed when the distinctive, stem-mining larvae of the hoverfly *Cheilosia albipila* were found. Hoverflies were extensively recorded and forty-three species listed, a third of the county total. Of chief interest was the capture of a single *Microdon mutabilis* by Anne and Stephen Coker. This is a rare species of wet heaths, where the slug-like larvae live in association with ant-nests.

The small section of wet heath attracted considerable attention and Kefyn Catley spent much of the day hunting there for spiders. This produced three new county records - the Wolf-spider *Pirata hygrophilus* and two Money-spiders, *Metopobractus prominulus* and *Hilaira excisa* - out of a total of twenty-four species recorded.

Butterflies and dragonflies have generally had a rather poor season in west Wales but a handful of Small Pearl-bordered Fritillaries *Boloria selene* enjoyed the afternoon sun and nine species of Odonata were on the wing. The Scarce Blue-tailed Damselfly *Ischnura pumilio* was widespread on the shallow meso-trophic ditches of the flood-plain and it was interesting to compare the two Demoiselles, *Caloptery splendens* and *C. virgo*. The attractive, day-flying Scarlet Tiger Moth *Callimorpha dominula* was also seen in small numbers.

Although Gwaun Garthenor a Llanio-isaf is a relatively small site (18.7 hectares) the diversity of wetland habitats provided much enjoyment for all present and the five hours seemed to pass very quickly. Opportunities to learn new sampling techniques and to discuss specific identification problems were a welcome aspect of the meeting and our thanks go to the Woodland Trust and Dr Peter Bourne for allowing access. It is readily apparent from the list of interesting finds that Gwaun Garthenor a Llanio-isaf is a valuable site for the conservation of wetland invertebrates and it is comforting to know that it is in such sympathetic hands.

The large colony of *Vertigo lilljeborgi* on the Llanio-isaf flood-plain is of great interest and it is hoped that periodic flooding continues and that encroachment by *Salix cinerea*

bushes is resisted. An increase in grazing pressure may be beneficial but perhaps manual removal of small bushes before they become fully established will be necessary. The Woodland Trust property contains a large area of willow and alder carr which supports local species of wetland Diptera but equally important are the open communities in their care. Particularly valuable is the small section of wet heath and basin mire which is already being invaded by saplings. It is imperative that this extension of the carr is held in check and the prompt removal of saplings, coupled with the re-introduction of light grazing, should be seen as a management priority. Limited woodland development on the disturbed areas of the site will provide valuable shelter for insects and serve to enrich the overall wildlife value of the reserve.

FIELD MEETING - PENGELLY FOREST (22/130390) VC45, 9 AUGUST 1986 - S J COKER

The venue for the August field meeting was Pengelly Forest in north Pembrokeshire. This is the largest block of ancient woodland in south-west Wales and historical descriptions of its type and use date from as early as the 16th Century. Within the woodland, a wide range of stand types are present, including good examples of habitats typical of southwest Wales, as well as Pedunculate Oak/Ash/Hazel lowland plateau woodland unknown elsewhere in west Wales. The woodland is owned by the Forestry Commission but managed by the WWTNC. In recent years, management by the Trust using MSC schemes has increased both access to the various habitats within the woodland and the value of the habitats themselves.

The construction of paths and the felling of trees to provide clearings and rides through the wood has provided new habitat and the selected felling of trees is aimed at providing a more varied age-structure which will enhance the woodland habitats.

In uncharacteristic bright sunshine the party set off around the wood. In both the clearings and along the rides Silver-washed Fritillaries Argynnis paphia were common. Also surprisingly common, along the long woodland ride, was the dragonfly Cordulegaster boltoni - a mating pair found in a bush providing an ideal photographic subject in the sunlight.

A total of twenty-five species of land molluscs were recorded including the local snails Zenobiella subrufescens and Vertigo substriata. The dry, acidic conditions prevailing throughout the woodland are generally rather species-poor for molluscs but more slugs could be expected to be found in autumn and winter, including the 'ancient woodland indicator' Limax cinereoniger.

Hoverflies however were abundant. Five species of 'Xylota' were seen including X. florum and Brachypalpoides lenta. The lunch site, a woodland clearing with a stream and various felled timber (including the seats and bridges) proved particularly attractive to these species. Also found here was Ferdinandea cuprea.

DIPTERA : SYRPHIDAE

NOTABLE HOVERFLIES OF DINEFWR CASTLE WOODS (VC44 - 22/611217) - G W HOPKINS

The Dinefwr Castle Woods reserve consists of some 26 hectares of mixed broad-leaved woodland owned by the West Wales Trust for Nature Conservation and overlooking the watermeadows of Afon Tywi. The best sections of the reserve for hoverflies - floriferous, sunny areas - lie away from the routes taken by the general visitor. A detour away from the path to the Castle, along the southern edge of the wood, leads into the only area where the commoner Xylota species (X. segnis and X. sylvarum) are regularly seen and X. florum and Brachypalpoidea lenta have also been recorded.

Beyond the Castle towards the Pump House is an area which is sunlit only in the afternoon. Here Rhingia rostrata can be found feeding on the flowers of Enchanter's Nightshade Circaea lutetiana and Creeping Thistle Cirsium arvense. Five individuals were seen on 8 + 11 August 1986, the brighter abdomen being a useful initial field character to distinguish them from the ubiquitous R. campestris. Rhingia rostrata is a rare (Red Data Book) species of woodlands previously known from north-west Wales and southern England.

In the nearby watermeadows lie the Dinefwr ox-bow lakes and here, on 14 August, I found two other nationally scarce hoverflies - Arctophila fulva and Callicera aenea. A single specimen of C. aenea was feeding on Water Plantain Alisma plantago-aquatica on the margin of one of the lakes. This species is described as "perhaps one of the most difficult to find" (Stubbs and Falk, 1983) as it is very unpredictable in its habitat preference but the larvae probably develop in dead wood.

References:

STUBBS, A E & FALK, S J (1983) - British Hoverflies. BENHS.

MECOPTERA

+

NEUROPTERA

LACEWINGS AND SCORPION FLIES IN DYFED - M J MORGAN

The Dipterist's Group held their annual one-week field meeting in Dyfed this year, based at Trinity College, Carmarthen. This was an excellent opportunity to collect Neuroptera and Mecoptera in numerous localities while engaged in general collecting. Other members of the group were encouraged to pass on any specimens which they came across.

Ten species of Lacewings were found during the week, mostly fairly common ones, though previously recorded in few South Wales localities. The most interesting capture was of Hemerobius marginatus, several being found on mature deciduous trees at Abergorlech near the river. One of the less common Hemerobiids, marginatus has only ever been recorded once before in South Wales. Another species with few South Wales records, Nathanica capitata, was found at Gwaun Garthenor, Ceredigion, in early July, new to the vice-county.

Scorpion-flies were caught at numerous localities: Panorpa germanica in 11 10 km squares and P. communis in 10 squares. However, there are still no records at all for scorpion-flies in Pembrokeshire. I should be glad to receive specimens from anyone collecting there at any time.

COLEOPTERISTS AND DIPTERISTS IN DYFED - A P FOWLES

In the past twelve months Dyfed has been fortunate to attract the attention of two groups of visiting specialists - the Balfour-Browne Club and the Diptera Recording Group. Since the early 1970's, when the county was visited by the Welsh Biological Recording Group (1973-1975) and briefly by the Diptera Recording Group (1975), invertebrate recording has relied largely on the activities of a handful of interested local naturalists. In this respect the contribution Dyfed has made to the various BRC Atlas schemes is quite remarkable, particularly for popular groups such as the butterflies, dragonflies and grasshoppers. However, our knowledge of the status and conservation needs of many of the 'difficult' groups will probably always depend upon surveys made by specialists tempted to sample the unexplored potential of our welcoming and unspoilt county.

The Balfour-Browne Club are currently collating records for the British Water Beetle Mapping Scheme and preliminary Atlases have already been produced. Dr Garth Foster and David Bilton visited Ceredigion on 11 and 12 September 1985, chiefly to investigate the fauna of periglacial sites. They were somewhat disappointed in that the relict species they were looking for evaded them but nonetheless fifty-five species were recorded, including at least five new to Ceredigion. Of chief interest was the confirmation of the continued presence of Bidessus minutissimus in Afon Rheidol, where it was discovered in 1947. This is a local species of the lower reaches of western rivers which has declined due to pollution, canalisation and increased sedimentation. Other beetles picked out for special mention were Deronectes latus and Bagous ? tempestivus (Afon Rheidol), Graptodytes granularis and Agabus congener (Llangybi kettle-hole), and the occurrence of three Enochrus species at Rhos Llawr-cwrt - E. coarctatus, E. ochropterus and E. affinis.

The Diptera Recording Group held their annual week-long meeting at Carmarthen between 5 and 13 July 1986 and eighteen members sampled a wide range of sites in both Carmarthenshire and Pembrokeshire. Welsh naturalists will not be surprised to learn that horseflies figure high on their list and it does seem to have been a year of astonishing abundance for Tabanus sudeticus (the largest British species). The Dolichopodidae (Long-legged Flies) yielded several records of interesting species, particularly in coastal localities. The splendid Carmarthenshire dune systems were extremely productive and notable species included the hoverflies Platycheirus immarginatus and Microdon mutabilis, the robber fly Pamponerus germanicus, the therevid Dialineura anilis, and the otitid Tetanops myopinus. The greatest excitement was reserved for the discovery of a fungus-gnat new to science whose nearest relatives live in Africa.

The visits of both these groups have added considerably to our knowledge of the invertebrate fauna of Dyfed and our thanks are warmly extended to them for 'straying off the beaten track'. The DIG members who were fortunate enough to accompany these groups in the field all benefited greatly from their readiness to impart knowledge and advice in a jovial and informal manner. Let us hope that they found enough to tempt them back again to enjoy the riches of west Wales.

References:

ANON (1974) - Biological Recording Group for Wales. Interim report of the field weekend held 5-8 October 1973, based in Cardigan. NMW Cardiff.

ANON (1977) - Diptera in North Central Wales; A Diptera Recording Schemes Survey, October 1975. NCC Internal Report.

BATEMAN, J A & CHATFIELD, J E (1975) - Biological Recording Working Group for Wales. Reports and Records of Field Meetings 1974-1975. NMW Cardiff.

DYFED INVERTEBRATE GROUP - NEWSLETTER DISTRIBUTION

ALEXANDER, K - National Trust Biological Survey, Spitalgate Lane, Cirencester, Glos GL7 2DE.
BIOLOGICAL RECORDS CENTRE - Monks Wood Experimental Station, Abbots Ripton, Huntingdon, Cambs PE17 2LS.
BOOTH, A B - North Lodge, Formby Hall, Southport Old Road, Formby, Merseyside.
BM(NH) - Dept of Library Services, Cromwell Road, London SW7 5BD.
BROWN, P - 18 St Martins Park, Haverfordwest, Dyfed.
CATLEY, K - Bryn Amlwg, Gors Neuadd, Tregaron, Dyfed.
CHATER, A O - Dept of Botany, BM(NH), Cromwell Road, London SW7 5BD.
COKER, S J & A - Mountain, Clarebeston Road, Haverfordwest, Dyfed SA63 4SG.
CONDRY, W M - Ynys Edwin, Eglwysfach, Machynlleth, Powys.
CROSBY, T - Gelli-deg Cottage, Gelli-deg, Llandyfaelog, Kidwelly, Dyfed.
DAVIES, D - Ty'r Ysgol, Rhandirmwyn, Llandovery, Dyfed.
DAVIES, T - Ivy Cottage, Maesycrugiau, Pencader, Dyfed.
DAVIS, Mr - 24 Oakridge Acres, Tenby, Dyfed SA70 8DB.
DAVIS, P E - Felindre, Aber-arth, Aberaeron, Dyfed.
DEVONALD, S - 22 Sandyke Road, Broadhaven, Haverfordwest, Dyfed.
DONOVAN, J - The Burren, Dingle Lane, Crundale, Haverfordwest, Dyfed.
ELIAS, D - Cefn Prys, Llanuwchllyn, Bala, Gwynedd.
ELLIOT, R - 10 Flemish Court, Lamphey, Dyfed.
ELLIS, J R - 53 Denham Avenue, Llanelli, Dyfed.
EVANS, F - Cae'r-berllan, Eglwysfach, Machynlleth, Powys.
FOSTER, Dr G - 20 Angus Avenue, Prestwick, Ayrshire KA9 2HZ.
FOWLES, A P - c/o NCC, Plas Gogerddan, Aberystwyth, Dyfed SY23 3EE.
FOX, Dr A D - c/o The Wildfowl Trust, Slimbridge, Glos GL2 7BT.
FRANCIS, I - 53 Blackdown Road, Deepcut, Camberley, Surrey.
GEE, Dr J - Dept of Biol Sciences, UCW Aberystwyth, Dyfed.
HANSEN, A - 16 Fleming Way, Neyland, Milford Haven, Dyfed.
HOPKINS, G - 19 Rawlings Road, Llandybie, Ammanford, Dyfed.
HUGHES, R A D - Swiss Valley Estate, Felinfoel, Llanelli, Dyfed.
HUTCHINSON, Dr G - c/o Dept of Botany, NMW, Cardiff CF1 3NP.
LILES, G - Danybanc, Cwm-morgan, Newcastle Emlyn, Dyfed.
LLANELLINATS SOC - c/o R D Pryce (Sec), Rhyd-deg Farm, Maesybont, Llanelli, Dyfed.
LOWE, N - 6 Ty Canol, Llangorse, Brecon, Powys.
LUCAS, A - 73a High Street, Gorseinon, West Glam SA4 2BP.
LYNN, Dr C - Glan-yr-afon, Pont-y-geifr, Talybont, Aberystwyth, Dyfed SY24 5HL.
MARTIN, T - 2 The Promenade, Neyland, Milford Haven, Dyfed.
MILES, P M - Werndeg, Cnwch-coch, Aberystwyth, Dyfed.
MORGAN, I K - 107 Denham Avenue, Llanelli, Dyfed SA15 4DD.
MORGAN, M J - School of Animal Biol, UCNW Bangor, Gwynedd.
NATIONAL LIBRARY OF WALES - Dept of Printed Books, NLW, Aberystwyth, Dyfed SY23 3BU.
NATIONAL MUSEUM OF WALES - Dept of Zoology, NMW, Cardiff CF1 3NP.
NATURE CONSERVANCY COUNCIL - Aberystwyth (9 COPIES), Bangor (2 COPIES),
Cardiff (2 COPIES), Peterborough (6 COPIES).
PESTER, S - Bronhaul, Pentre-bach, Talybont, Aberystwyth, Dyfed.
POULTER, D - Ty Isaf, Pentrepoeth, Idole, Carmarthen, Dyfed SA32 8DH.
RODERICK, E - Pant-yr-ynn Farm, Llarmon, Llanelli, Dyfed.
RODERICK, H - 32 Prospect Street, Aberystwyth, Dyfed.
SAVIDGE, Dr J P - Dept Botany, UCW Aberystwyth, Dyfed.
SIMPSON, Dr A N B - The Sycamores, Old Rectory Gardens, Leigh, Worcester WR6 5LO.
SLADE, H - Y Bwthyn, Parciau Glas, Llys-onnen Road, Carmarthen, Dyfed.
SQUIRES, R - Cae'r-bellan, Eglwysfach, Machynlleth, Powys.
SWIRE, P - 9 Heol-y-wawr, Carmarthen, Dyfed SA31 5EX.
THORPE, R - 2 Tan-y-garth, Friog, Fairbourne, Gwynedd LL38 2RJ.
WALLACE, Dr I D - Dept of Invert Zool, Merseyside County Museums, William Brown Street, Liverpool L3 SEN.
WALTERS DAVIES, P - Alltgo, Caemelyn, Aberystwyth, Dyfed SY23 2HA.
WELSH WATER AUTHORITY - Penyfai House, Penyfai Lane, Llanelli, Dyfed.
WEST WALES TRUST FOR NATURE CONSERVATION - 7 Market Street, Haverfordwest, Dyfed (2 COPIES).
WILLIAMS, B - Wuthering Heights, Welsh Hook, Wolfcastle, Haverfordwest, Dyfed.
WILLIAMS, I - Tremglyn, Rhydyfelin, Aberystwyth, Dyfed SY23 4PX.
WOOLLEY, D & E - Llawr-cwrt, Talgarreg, Llandysul, Dyfed.