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White-faced Darter

(David Clarke)

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The issue following this one will be the first of two in the 20th anniversary year of this publication, so we will be looking for ways of celebrating the year, and look forward to some especially interesting contributions - in both issues for 2012.

Summer 2011 has seen some challenging conditions for the Society as well as wildlife. Although none were cancelled, several field meetings were conducted in very poor weather, and one (Braithwaite Moss, 28th May) is not even reported for these reasons. Similarly, the excellent Soldier Beetles workshop presented by Jim Thomas (30th July) had to contend with few species being found in the afternoon field session. Some of the warmest weather finally arrived for a few days at the end of September, and brought interesting reports that will be followed up in the next issue.

Notwithstanding this, the contents of this issue show once again the richness and potential of our region. As ever, I am grateful to suppliers of high quality images that complement the text, and remind future contributors that we encourage this aspect of recording wildlife.

David Clarke, Editor

Museum News

The newly established Cumbria Biodiversity Data Centre (CBDC) was officially launched on 22nd October 2011 by Tullie House Trust Board member and Chair of the Friends of Tullie House Richard Speirs. This was to a packed audience, which was then treated to an extended day of engaging presentations about various aspects of current wildlife recording activity in the county. The success of the day will almost certainly result in a similar event in a year's time.

'In Search of Nature'

The long-established biological activities of Tullie House and naturalists of the county are celebrated in the museum's autumn exhibition 'In Search of Nature', a title gleaned from the book by Derek Ratcliffe, whose own contribution to researching and documenting the county's wildlife is second to none. The exhibition surveys biological recording in a very attractive and accessible way. It includes excellent in-house generated computer interactives, and a variety of other hands-on exhibits, plus many wildlife specimens and some fascinating 'archive' records and notebooks. It is in the upstairs Special Exhibitions gallery and continues until 8th January 2012.

These notes are from members' records for the period April to September 2011. In addition to these, the Field Meeting reports contain many records, especially botanical. Un-credited records are mine, though not always mine alone.

Birds

April and May saw the arrival of the majority of summer visiting birds and a few passage visitors heading further north. As well as the usual warblers, swallows and martins, there was a **Pied Flycatcher** at Brandelhow on April 9th (DI), an early **Redstart** at Talkin Tarn on April 15th, and **Wood Warbler** at Miltonrigg on April 23rd (NF). Other early arrivals included a **Common Sandpiper** at Rockcliffe on April 8th (NF), a **Cuckoo** at Watchtree on April 5th (FM) and **Swifts** at Wigton on April 22nd (MP). Scarcer visitors were **Grasshopper Warblers** at Watchtree (FM), Dalston and Cummersdale (DH) and Geltsdale (SW).

Apart from the breeding birds at Bassenthwaite, single **Ospreys** were seen on passage in the Brockleworth-Wetheral reaches of the Eden on April 6th, 7th and 8th (FJR/DC). These were followed by a **Hen Harrier** at Wetheral on April 9th (FJR). An **Osprey** was also seen near Aglionby on April 17th (RJ). Passage waders were along the Solway coast at various points, and included **Green Sandpiper**, **Ruff** and **Whimbrel** (TR). More unusual was a **Little Ringed Plover** at Midgeholme on April 21st (SW) but yet more so was the county's fourth only **Kentish Plover**, at Bowness (NF - see p. 47 and Plate 1). Other unusual birds in the early season were a **Long-eared Owl** (Plate 2) which roosted low down and close to the road at Jockey Shield until well into May and attracted a lot of attention (JM). A late sighting of a **Rough-legged Buzzard** in Geltsdale on April 15th was an excellent find (RJ). He also reported at total of 145 **Kittiwakes** off Bowness-on-Solway on April 13th. Other notable birds were a (feral) **Egyptian Goose** at Holme Dub on April 14th (FM), a **Common Scoter** at Castle Carrock reservoir on May 18th (JM) and a late **Whooper Swan** at Talkin Tarn on the same day.

There were few records in June but two unusual bird sightings were a **Hobby** over Brampton on 26th and two **Twite** (normally a winter visitor to the coast) at Mawbray on 28th (DI). July was also a fairly quiet month: **Tufted Ducklings** were at Talkin Tarn on 16th, but only one survived; an early-returning **Green Sandpiper** was at Beaumont on 3rd (PW). Moving on into August, there was an **Osprey** at Warwick Bridge on 20th (DC) and a **Little Egret** was seen between Campfield and Port Carlisle by many observers. The first **Wigeon** returned to Talkin Tarn on 30th September. September reports of interest were a **Spotted Redshank** at Campfield on 14th and a **Mediterranean Gull** at Workington on

23rd (CH). At Talkin Tarn, three **Shovelers**, scarce visitors, were there on 10th, and the first of the **Goldeneye** appeared on 21st.

Other Vertebrates

An **Adder** at Scaleby Moss on 15th June was a comparatively rare sighting there (DC); much more widely recorded – **Otter** sightings included the Caldew at Dalston on April 10th (DH), Low Holme on the Eden in daytime on April 18th (per DC), a road casualty north of Longtown on September 20th (per RD) and one seen on the same day on the Cairn Beck, Heads Nook (per RS). The first of an unusual number of sightings of **Porpoises** was of an adult and calf off Grune Point on July 28th (JM) and probably the same off Skinburness two days later; on August 3rd, at least 6 were off Silloth, and two off Bowness-on-Solway on August 31st.

Insects

Butterflies did not figure prominently in reports – perhaps not surprisingly given lengthy spells of poor and often windy weather from May onwards. **Green Hairstreaks** at were reported from two sites in Borrowdale on April 30th (DI) and at Scaleby and Foulshaw Mosses on April 27th (DC). An early **Painted Lady** was near Hartsop on April 9th (SH). One seen at Burgh-by-Sands on June 11th (RG), one on 3rd July at Mawbray (DI) and one on 23rd August at 660 m on Eel Crag, Newlands (FJR) were the only other records of this butterfly for the whole period. **Holly Blues** were seen in a Stanwix garden on 29th July (DI) – and again on August 25th. **Speckled Woods** were reported again from Fishgarth Wood, 24th April (DC), and in July from Caldbeck on 2nd (PW) and from Borrowdale on 4th (DI). A record on 15th September from Kingstown, Carlisle, was the most northerly to date (JT). An interesting late record was from Gowbarrow Park on October 1st (RSG). Noteworthy moth records included an **Emperor Moth** egg-laying on a house at Bowness-on-Solway (JJR) and **Orange Underwings** observed in Borrowdale on April 21st and May 4th (DI). The latter observer also noted two interesting moths seen in the Gilsland gorge on June 29th: **Clouded Magpie** and a **Red-necked Footman**. A **Shoulder-striped Wainscot** was in my garden moth trap in Milton on 25th June. Single **Hummingbird Hawk-moths** visited a Cumwhitton garden on 13th and 29th July (DC) and RSG had sightings at Burgh-by-Sands on six dates in the period 11-25 July. **Frosted Orange** is a scarce, but almost annual, moth and there was one in my trap on 24th September and another the same night at Jockey Shield (JM). Amongst other insects, uncommon species were a **Pine Ladybird** (*Exochomus 4-pustulatus*) on gorse at

Mawbray on April 9th (DI) and a **Birch Sawfly** (*Cimbex femoratus*) at Scaleby Moss on June 29th (DC). **Banded Demoiselles** have been seen at a new site this summer – on the R. Derwent near Isel (per RA). The brief very warm period at the end of September brought exceptional records – such as 37 **Red Admirals** in a Dalston garden on the 27th (DH), and, equally unusual, a male **Brown Hawker** dragonfly on October 1st at the Sands, Carlisle (TR). This appears to be the first record for northern Cumbria, and almost the only one for v.c. 70.

Recorders

MA Mike Abbs; RA Roy Atkins; DC David Clarke; RD Richard Dixon; NF Nick Franklin; SH Steve Hewitt; RSG Russell & Sarah Gomm; DH David Hickson; CH Chris Hind; DI Dorothy Iveson; RJ Bob Jones; FM Frank Mawby; KM Kirsten Mawby; JM John Miles; MP Mike Porter; RS Rob Shaw; TR Tristan Reid; FJR Jeremy Roberts; JJR John & Judith Rogers; JT John Taylor; SW Steve Westerberg; PW Peter Wilson.

Geoff Naylor



Pied Flycatcher

(Stephen Hewitt)

Field Meetings

11th May 2011: Cardew Mires

Leader: Frank Mawby

Sixteen people gathered by the works of the gravel pit where we were given a short talk by the Estates Manager Jonathan Garbutt and the Quarry Manager Daniel Carr. As with most of the month, the temperature was not exactly warm but the Sand Martins were busy as usual gathering food around us. Two Common Sandpipers were found using the edge of the two main pools with one in use for extraction while the other is shortly to be converted to a nature reserve with two hides.

Both Greylag and Canada Geese have already found the site and had goslings, but lack of islands when the water rises on the nature pool may deter many bird species: those seen, like Oystercatcher, Shelduck, Tufted Duck and even Mallard, will be vulnerable to Fox attack if nesting on the shore. A line of broad-leaved trees along the boundary of the site held Redstart and Stock Dove, and looked suitable for owls too, as several had hollows.

Over 75 species of plant were identified by Jeremy. Some remnants of the former mire were Lesser Pond Sedge (*Carex acutiformis*), and Bittersweet (*Solanum dulcamara*) with the Common Cottongrass (*Eriophorum angustifolium*) over the fence in the old bog. The reed bed will hopefully attract new life once the water level is increased, with Sedge Warblers and Reed Buntings using it at present. More water birds included Cormorant, Great Crested Grebe, Teal, Lesser Black-backed Gull and Mute Swan.

Attention was turned to Frank's telescope when he found a Little Ringed Plover feeding along the edge with one of the Common Sandpipers. This is a bird that loves worked gravel pits but once this area stops working the site may not be suitable for them. They have previously nested along the Caldew near Dalston.

It is hoped that members will continue to use the site once the work has been completed on the second pool and the hides erected. They will need to call into the office during working hours just to let the company know they are on site.

John Miles

11th June 2011: Cliburn Moss & Tarn Moss NNRs

Leader: Colin Auld

Situated in the middle of the Eden valley, Cliburn Moss, though much modified by human actions over a long period, remains an important wildlife site. Even today some of it is not easily accessible and we followed the routes developed by Natural England, which take visitors around all the key habitats it offers.

The splendid stands of really old mature pines with open canopies gave us a real sense of the place on entry to the site. These certainly *look* native here and this impression is reinforced by the presence of special plants typical of northern forests: the Common Wintergreen (*Pyrola minor*) and two orchids – the diminutive Lesser Twayblade (*Neottia (Listera) cordata*) and Creeping Lady's-tresses (*Goodyera repens*). All of these we saw in fair quantity in different parts of the site, though only the second of these was yet in flower. Yet another component of the 'northern' flora, scarce in Cumbria, was Northern Bilberry (*Vaccinium uliginosum*), here showing signs of active spread in the more open areas. The largest patch was quite magnificent, several metres across and over a metre high, and clearly flourishing.

Although past drainage attempts and eutrophication have much reduced the interesting neutral fen communities at Cliburn, we were still able to enjoy the remnants of these. The many spikes of the Lesser Butterfly Orchid (*Platanthera bifolia*) were a special attraction for us, amongst other plants such as the Lesser Tussock-sedge (*Carex diandra*), Skullcap (*Scutellaria galericulata*) and Northern Marsh Orchid (*Dactylorhiza purpurella*). A Small Pearl-bordered Fritillary appeared here, much to the Leader's delight: a species not seen here before, and presumably indicating a nearby colony. A Wood Tiger Moth was also seen, and Crossbills and Tree Pipits were around.

Steve Hewitt and John Parker collected a number of insects in the fen area, among the more notable of which were the RDB2 silver-fly *Acrometopia wahlbergi*, in some numbers here at its only Cumbrian location (last reported here ten years ago by Mike and Liz Howe (*Carlisle Naturalist* 9(1))). The RDB1 crane-fly *Phyllidorea heterogyna* was also present – a bog specialist which has recently been found at a scattering of mires across the county. The hoverflies *Xylota florum* and *Anasimyia contracta*, both uncommon wetland species, were recorded and the heathland shieldbug *Rhacognathus punctatus* was also a nice find.

Procumbent Marsh-wort (*Apium nodiflorum*) and Celery-leaved Crowfoot (*Ranunculus scleratus*) – both in the large pool otherwise filled with very luxuriant Bog-bean were new tetrad records. In the open pasture on the eastern edge of the site, there were spectacular sheets of flowering Dyer's Greenweed (*Genista tinctoria*) – according to Colin, now strongly spreading in this section of the NNR.

Before leaving the site, JR, DC and Colin Auld had a brief search over the open acid bog, which grades into drier heathy peat with much Crowberry (*Empetrum nigrum*) and pines. Two special rarities of the site, the moss *Hypnum imponens* and the lichen *Cladonia rangiferina*, have both been recorded here until quite

recently. However, sadly we were unsuccessful and wonder whether either now survives.

In the afternoon we made the short drive along the A66 to Tarn Moss, another NNR, a fine basin mire supporting nutrient-poor fen. Sedges are well represented here. The eastern portion has extensive sheets of the tall Slender Sedge (*Carex lasiocarpa*), with its narrow leaves prolonged into a fine whip-like point. Although a 'shy-flowerer' in some sites, here many ripe stems were present, the fruits with their covering of short hairs – an unusual character in mire sedges. The delightful Tall Bog-sedge (*C. magellanica*) was widespread, and grew both in runnels and seepage areas, and – as if displayed for our admiration – over the tops of some of the moss hummocks (Plate 3). The fruiting spikelets, suspended on long slender stalks, dangled freely and swung in the strong wind. Other typical plants of the mire were Bog-rosemary (*Andromeda polifolia*) and Cranberry (*Vaccinium oxycoccus*) – the latter with abundant flowers, promising a good crop of berries. Heath Spotted-orchid (*Dactylorhiza maculata*) was in good quantity and fine flower. Some inflow streams provided more nutrient, indicated by colourful ribbons of Ragged-Robin (*Lychnis flos-cuculi*), Marsh Lousewort (*Pedicularis palustris*), and many other plants.

Returning along the old railway embankment separating the NNR from the A66, we saw some Adder's-tongue (*Ophioglossum vulgatum*) with Flea Sedge (*C. pulicaris*), indicating some calcareous influence, presumably from the track-ballast. Two moths noted were Red-necked Footman and Gold Swift.

David Clarke & Jeremy Roberts

9th July 2011: South Lakes: Dragonflies, etc

Leader: David Clarke

After a rainy preceding night the 12 members who met at Foulshaw Moss were pleased to be greeted with fine weather. Foulshaw Moss is a Cumbria Wildlife Trust Reserve (approximately 350 hectares), much of which is restored forestry land. The raised mire was only acquired by the Trust in 1998 and a great deal has been achieved in the time since – tree felling, ditch blocking and re-wetting of the moss.

We set off along the track from the car park and joined the broad walk across the moss. The vegetation across the open flat expanse of the bog consists of mainly *Sphagnum*, Purple Moor-grass (*Molinia caerulea*), Ling (*Calluna vulgaris*) and occasional Bog-myrtle (*Myrica gale*). Ripening Cranberries (*Vaccinium oxycoccus*) were to be seen hanging from their strand-like plants on the surface of the *Sphagnum*. When we reached the first pool we saw large Emperor Dragonflies

hunting across the water. Black Darter Dragonflies and Four-spotted Chasers were present along with five types of damselfly: Large Red, Emerald, Common Blue, Azure and Blue-tailed Damselfly.

We noted Lesser Redpolls in some low lying scrub near the pool, and then continuing on our walk, found Bog Bush-crickets, which were first located using Russell Gomm's bat detector. Common Lizards were seen on the broad-walk, and a Common Toad and an Adder amongst vegetation. A Hobby catching insects high above the Moss became a temporary 'star attraction'. We later saw it mobbing a Buzzard – suggesting possible allegiance to the site.

Soon we reached the two pools where larvae and eggs of White-faced Darter dragonfly had been placed as part of a current re-introduction project. The project had started in 2010, and the first mature larvae had been translocated earlier this year. David told us that the resulting adult White-faced Darters had been recorded from on 11th May onwards (Plate 3). The larvae live among the tangle of *Sphagnum* in the pools, well hidden from predators. It takes at least 2 years for their development from egg to adult. Adults emerging this year this year had mainly derived from mature larvae introduced this year, though some at another pool from were clearly from the 2010 introduction. About 60 exuviae (cast larval skins) left by newly emerging adults had been found on the vegetation surrounding the pools. David was able to find a half-grown larva to show us.

We continued our walk and saw Straw Dot Moth amongst the *Molinia*, and near another pool, surprisingly, a male Keeled Skimmer, resplendent with powder blue abdomen. This was a new for dragonfly for the site, though it usually prefers slow-flowing runnels to bog pools. Amongst the *Sphagnum* hummocks we saw two types of cottongrass (*Eriophorum vaginatum* and *E. angustifolium*). We made our way to the viewing platform and climbed up to look across the nearby water and across the moss from this excellent vantage point. We watched as an Emperor Dragonfly caught and dispatched another dragonfly over the pool. Two Ravens sat in some distant trees while we hoped for further views of that Hobby.

After lunch, eight members went on to visit the nearby Latterbarrow Cumbria Wildlife Trust Reserve. Ian and Krysia Brodie are very familiar with the site and were able to give us an informative conducted tour of the small reserve which is a mosaic of limestone grassland, woodland and scrub. Although we were too late in the season for a good display of orchids, we were greeted with colour from the yellows of the Agrimony (*Agrimonia eupatoria*), St John's-worts (*Hypericum* spp.), Crosswort (*Cruciata laevipes*), Goldenrod (*Solidago virgaurea*), Smooth Hawk's-beard (*Crepis capillaris*) and Lady's Bedstraw (*Galium verum*), and the pinks of the Musk Mallow (*Malva moschata*), Wild Thyme (*Thymus polytrichus*)

and Betony (*Betonica officinalis*). Butterflies and moths seen included the Red Admiral, Comma, Small Tortoiseshell, Large White, Green-veined White and Silver Y.

Marie Saag

23rd July 2011: Drumburgh Moss

Leader: Geoff Naylor

A delightfully bright and sunny day encouraged insects into activity, the Odonata being particularly conspicuous. Many Black Darters – equally striking fully black males and orange-and-black females – were frequent, and we saw Common Darters, Four-spotted Chasers, and at least one Emperor Dragonfly. Damselflies were well-represented, with Common Blue, Azure, Blue-tailed, and Emerald. One observer found a Banded Demoiselle by a small flowing ditch next to the car-park. A single Large Heath butterfly was seen, and among the moths, a Four-dotted Footman.

Birds were less obvious – as is typical at this time of year – although singles of Reed Bunting and Sedge Warbler were in intermittent song. Lesser Redpolls were active, however, and were as ever flying over noisily. A Raven came by calling – a species increasingly seen in the Solway lowlands.

A piece of sloughed skin was the only sign of Adder. Frogs were frequent.

Bog-rosemary (*Andromeda polifolia*) was in good flower along a grassy soakway, which also had masses of superbly flowering White Beak-sedge (*Rhynchospora alba*). This was scattered also as much smaller patches or single plants out on the open moor in damper hollows. David Hickson found a single white-flowered plant of Cross-leaved Heath (*Erica tetralix*), striking amongst the large populations of the normal pink-flowered form. Bog Asphodel (*Narthecium ossifragum*) and Cranberry (*Vaccinium oxycoccus*) were conspicuous in some areas; the former was largely past flowering, and the latter had a good crop of developing berries.

In the afternoon we called in at Bowness CWT Reserve. Birds were again unobtrusive, with only Goldcrest in song. Willow Tits – fairly reliable here – called but were not seen. A Grey Heron was flushed from one of the pools. Southern Hawkers were frequent, and perched individuals of this large and spectacular dragonfly were admired at close range. Of butterflies, Meadow Brown, Ringlet, and Large Skipper were seen. Moths included Shaded Broad-bar, Latticed Heath, and Straw Dot.

Bladder Sedge (*Carex vesicaria*) was extending its patches over one pool, and nearby were several tussocks of White Sedge (*Carex canescens*), and tall flowering Water-plantain (*Alisma plantago-aquatica*), with its unusual three-

petalled flowers. Only a small quantity of Floating Club-rush (*Isolepis fluitans*) was seen in one pool: in some years it can dominate some of the shallow pools by this stage of the season. Recent rains appeared to have stimulated fungal growth and some heads of The Blusher (*Amanita rubescens*) were seen.

Jeremy Roberts

6th August 2011: Border Marsh/Calvo Marsh

Leader: Frank Mawby

Seven members turned out on an overcast morning threatening rain later in the day. We were joined by Ann Lingard (her pen-name) and her husband John Lackie. Ann has a keen interest in the Solway and estuary wildlife and cultural history, and leads shore walks in the Allonby and Beckfoot area, all of which is documented through her web site, www.solwayshorestories.co.uk.

Border Marsh and the contiguous Calvo Marsh are traditionally grazed by cattle during the summer (May to October) and sheep during the winter. Generally stocking levels are relatively low and consequently there is a seral succession of salt marsh plants, from the halophytes, that tolerate regular tidal inundation, to the terrestrial. The marsh also shows four distinct changes in level in the form of distinct steps of about 0.2 to 0.4 metres deep and a final inland sloping step that varies from about a half-metre high near Border gate to more than 2 metres high where it overlooks Skinburness Marsh.

Gorse lines the last change in level and, once a continuous band, it was dramatically reduced by cutting about 3 years ago, before which it held good numbers of breeding Linnets and Stonechat. The Linnets are still present in the small area left but the Stonechats succumbed in the cold winter of 2010. The gorse is recovering and in future should be better managed under the Countryside Stewardship agri-environment scheme.

The upper marsh is entirely terrestrial vegetation, rarely inundated by exceptionally high tides, although the old tidal creeks that drain it do fill up on the highest spring tides most years and a few salt marsh plants can be found there. The vegetation is dominated by Tufted Hair-grass *Deschampsia cespitosa*, which is only lightly grazed and forms very large tussocks. Plants in small clearings include Bird's-foot Trefoil, Devil's-bit Scabious, Knapweed, various *Juncus* species, sedges and finer grasses.

On the first of the lower steps, inundated on the highest spring tides each autumn and spring, there is a mix of typical salt marsh plants dominated by the grass Red Fescue *Festuca rubra* with Silverweed *Potentilla anserina*, Daisy *Bellis perennis*, Salt Marsh Rush *Juncus gerardii* and other terrestrial plants. At the next step, regularly inundated by spring tides, the vegetation becomes markedly different

and whilst the grass remains Red Fescue, the Common Saltmarsh-grass *Puccinellia maritima* occurs in patches. This remarkable grass is primary coloniser of mud flats and contains a 'double protein' which enables growth in salt water conditions. It is highly palatable and sought after by wildfowl, cattle and sheep. It will maintain its presence on a salt marsh into the terrestrial zone if the fescue is heavily grazed, but is overtaken if stocking levels are low in the summer. In the higher areas of the marsh it lines the edges of the tidal creeks. Within this mixed sward we found Sea-milkwort *Glaux maritima*, Sea Arrow-grass *Triglochin maritima* and Sea Plantain *Plantago maritima*. The seed heads of both these plants are eagerly sought after by large flocks of feeding Twite, especially in November and December.

In the creeks flower the Spear-leaved Orache *Atriplex prostrata*, Annual Sea-blight *Suaeda maritima* and the mist-blue Sea Aster *Aster tripolium*. The Aster often attracts good numbers of butterflies, but unfortunately the weather was not suitable on this occasion.

The drop down to the third step took us into a zone regularly inundated by the tide, here the vegetation is dominated by Saltmarsh-grass, Thrift *Armeria maritima*, the scurvy-grass *Cochlearia anglica*, Sea Aster, Sea Arrow-grass, and in the creeks *Atriplex hastata* and *Suaeda maritima*. In the muddy areas Glassworts *Salicornia* sp. begin to show.

At the barbed wire fence, which stops cattle, but not sheep, from straying, the fourth drop occurs and here the salt marsh grass dominates and develops its typical long, prostrate form. In small hollows *Spartina* colonised a few years ago and is slowly expanding its area. Where the grass ends the *Salicornia* takes over, but its range is limited by the steep drop into the River Waver channel, which for some years now has flowed close to the edge of Calvo Marsh. The channel does move but this seems less now that there is a considerable build up of silt off Newton Marsh between the Waver and the Wampool channels. The extent of the *Salicornia/Puccinellia* bed continues to increase significantly suggesting that Moricambe Bay is filling up rapidly. The expert view is that silt is brought in by the tide as longshore drift from areas where the coast is eroding. The build up has been occurring for at least 10 years.

There are several rocky scars in the estuary, and they attract the wading birds, Shelducks and gulls. The expert eye of Ann revealed why, as she showed us a wide variety of intertidal invertebrates. The small shrimp-like *Gammarus* were abundant under stones and in the pools. The pebbles and rocks were covered in small barnacles – and casts of lugworm *Arenicola* were abundant. A fine specimen of a ragworm *Nereis* was found under a rock. On the surface were many shells:

empty small pink Tellin shells and a dig into the sediment brings up live Baltic Tellin *Macoma baltica*. There are also many empty cockle shells. Cockles are quite scarce at present and seem to go in cycles; a few years ago after a large spat fall they were heavily over-fished, but this is now better regulated. Cockles are an important food for Oystercatchers. There were winkles *Littorina littorea* in the pools, and the smaller *Littorina saxatilis* on the pebbles and rocks nearer the top of the shore. One dig with the spade brought up intact burrows of the small shrimp-like crustacean *Corophium volutator*, several of the burrows still containing the shrimps; *Corophium* were also seen crawling across the surface of the muddy sand. On the edge of the river Ann was very pleased to find stranded marble-sized clear jelly blobs that she told us were 'sea gooseberries' – Ctenophores.

On digging into the rocky area we noted that the rocks were only a shallow layer embedded in red clay, quite unlike the typical estuarine sediments of the muddy areas, which suggests that even out here the retreating glaciers left their mark. The rocks are presumably also of glacial origin. On low water counts these rocky scars are where the majority of small waders are found. On the estuary, the mix of sand and silt determines which species of invertebrate live where. Fewer waders feed on the sandy areas and the very dense muddy areas but where the mix of sand and mud is right there can be a vast quantity of invertebrate life. The key is bacterial activity which is greater on mud-coated sand particles. On such an area we found the tiny black spiral snail *Hydrobia*, which is a rich source of food for many waders.

The Solway may well now be one of the least interfered-with estuaries in the western seaboard of Europe, at least from the perspective of development within the mud flats. Wind farms are already changing its face, and talks of a barrage continue despite several protective designations by both England and Scotland, European status as a SAC and worldwide status as a RAMSAR site. In the writer's humble opinion the Solway Firth should be untouchable!

Frank Mawby

20th August 2011: Wan Fell

Leader: Stephen Hewitt

Wan Fell is one of several low sandstone hills lying in a north-south line between the Eden valley and the M6/A6 corridor. Its maximum altitude is about 240 metres a.s.l. and it contains a wetland area known as Long Moss. Towards the summit is a wood consisting almost entirely of Scots Pine. For the naturalist, there is a wide variety of insects and some interesting plants and fungi.

Perhaps one of the more unusual insects is the Bog Bush-cricket which was re-discovered there quite recently, but we didn't visit that part of the fell. It is also notable for the variety of ladybirds – perhaps ten or so species – but, again, we

were disappointed to find only two species – the ubiquitous 7-spot and the more unusual 14-spot.

With two dipterists in the group, it wasn't surprising that flies featured prominently. Many of them were hoverflies, some of which were colourful but nearly all lacking English names. However, the first to be examined was named Marmalade Fly (*Episyrphus balteatus*) some of which migrate to this country from continental Europe. Another was *Myothropa florea*, the larvae of which develop in water pockets in trees. Two flies of another group (craneflies) deserve a special mention. These were caught and examined at Long Moss and were both considerable rarities. One, the insignificant *Phyllidorea heterogyna* is found only in association with *Sphagnum*; the other, with a strongly marked wing-pattern, was *Idioptera linnei*.

Several bugs were also examined, including three species of relatively large shieldbugs and a ground bug – a pine-wood specialist which is rare in England – *Eremocoris plebejus*. Apart from the two ladybirds, other species of beetle were found, including the Green Tiger Beetle and both species of violet ground beetle (*Carabus violaceus* and *C. problematicus*). Six species of butterfly were noted, but nothing more unusual than a Small Copper and only two kinds of moth were seen.

Grasshoppers fared rather better, with three of the four Cumbria species. Several Black Darters and a Common Darter were the only dragonflies to show and two of the large *Araneus* species of spider were found – *A. diadematus* and *A. quadratus*.

Several Common Lizards and the cast skin of quite a large Adder represented the reptiles. Interesting plants included Western Gorse; Cranberry (fruit); Bugloss; Field Gentian and two species of Cudweed (Common and Small). Finally, between us, we hesitatingly identified some fungi, including Horse Mushroom, Tawny Grisette and the distinctive Orange Birch Bolete. Less easy were some brightly coloured waxcaps including *Hygrocybe persistens*, *H. cantharellus* and *H. conica*, but probably more unusual was a tiny orange cup fungus identified as *Melastiza cornubiense*.

Geoff Naylor

26th August 2011: Moth Trapping at Finglandrigg Rigg

Leaders: Mike Clementson & Liz Still

A total of nineteen people attended, which was very encouraging, and conditions for mothing were judged to be near-perfect. The three trappers were Mike Clementson, Liz Still and Martin Tordoff. Surprisingly, despite the conditions, the combined catches of three Mercury Vapour and one Actinic trap were not particularly large. The species caught were mostly of widespread ones, some 38 in

all, with Pale Eggar and July Highflyer being amongst the most numerous. The only unusual catch was a single of the tortricid 'micro-moth' *Cydia fagiglandana* at Liz Still's MV lamp over a white sheet: as Liz put it 'one of the little brown jobs' of the moth world, though probably a new record for v.c. 70. A few other species may turn out to have been new to the Finglandrigg list once records have been checked. The records will all be sent to the Tullie House Biological Data Centre.

Mike Clementson & Liz Still

10th September 2011: Borrowdale, Mosses & Liverworts Leader: Jeremy Roberts

Our venue was Johnny Wood, an oak-wood near Rosthwaite, unequalled south of the Scottish border for its richness in bryophytes. Many of the species found there are typical of the Western/Atlantic elements of the flora, dependent on the high average humidity ensured by seasonally well-distributed, and high, rainfall.

The purpose of the meeting was mainly to appreciate the richness of the site and gain some basic insights into how to examine and identify these special plants. Jeremy had produced a sheet detailing about 40 of the commoner mosses and liverwort species we expected to encounter, grouped into their typical micro-habitats (and including a selection of the ferns too). As he explained, bryophytes have recently all been given 'English' names, but these are new and (in his view) artificial and unmemorable, making use of the scientific 'latin' species-names still the only satisfactory alternative.

We did not have far to go before encountering commoner species festooning a wall: *Racomitrium lanuginosum* with its white hair-points, and the ubiquitous and variable *Hypnum cupressiforme*. From then on we examined the coatings of tree trunks, fallen timber and, most of all, boulders and rock outcrops. Many bore beautiful mosaics of species and the 'usual suspects' from Jeremy's list soon began to slot into place. Although many were relatively widespread and common (though especially abundant here), others such as the moss *Hylocomiastrum umbratum* and the beautiful liverworts *Bazzania trilobata* and *Mylia taylorii* were far more restricted to western or northern sites. Hand-lenses proved essential to view the often complex structure of leaves and fruiting bodies. Unsurprisingly, many species seen were not on the list, the more notable amongst them being the mosses *Dicranodontium denudatum* and *Racomitrium aquaticum* and the liverworts *Plagiochila spinulosa* and *Saccogyna viticulosa*. *Sphagnum* species often added colour: a rich pink form of *Sphagnum quinquefarium* (along with *Mylia taylorii*) adorned a tree stump; another colourful *Sphagnum* was *S. russowii*. In all, at least 60 species were seen – a figure which would have been substantially

increased with a closer inspection of a wider range of habitats than we covered.

Conditions for viewing all these species were in some ways ideal. The Atlantic was duly delivering its bounty of rain, enhancing the luxuriantly verdant bryophyte cloak over walls, rocks, cliffs, boulders and tree-bark alike: a true temperate rain-forest. For lunch-time, the elements had reserved definitive confirmation of this status, diluting the coffee as we drank it, and treating carelessly exposed sandwiches and notebooks with equal disdain. However, stoically we resumed our mission thereafter and added several more bryophytes to the lists, notably the glossy pale golden-green *Sematophyllum micans*, characteristically coating smooth sloping areas of rock. The bryophyte-like Wilson's Filmy-fern (*Hymenophyllum wilsonii*) was much at home here too, but the 'grande finale' was provided by a privileged view of one of its relatives, the Killarney Fern (*Trichomanes speciosum*). The fronds (sporophyte generation) of this species are extremely rare in Cumbria, but it has become known in relatively recent years that the sexually reproductive gametophyte generation is far more widespread. We were assured by our leader that the sight of a characteristic bright green filamentous 'film', torch-lit in the deep shade of cavities under several rocks, was indeed this species – a rare treat.

Digressions to other plant groups had included chances to compare the very local Alpine Enchanter's-nightshade (*Circaea alpina*) with its more widespread relative, Enchanter's-nightshade (*C. lutetiana*). The distinctive low-growing shoots of the former, with their broader, more dentate, leaves were mingled, often inconspicuously, with mosses and other plants on the woodland floor. Ferns had provided several points of interest apart from the above-mentioned, especially the often confusing Buckler-fern group, in which inter-species variation and gradation present many identification challenges. The slight reservation with which Jeremy declared some examples amongst bouldery shade to be the Northern Buckler (*Dryopteris expansa*) made the point well. Fungi were relatively few and mainly widespread species such as Amethyst Deceiver (*Laccaria amethystina*), Brown Roll-rim (*Paxillus involutus*) and Honey Fungus (*Armillaria mellea*). Before entering the wood, we had encountered a fine example of the scarcer apricot-coloured *Amanita crocea*, along with trooping yellow wax-caps (*Hygrocybe* sp.), in a pasture.

Jeremy included, our party contained three with expert knowledge, adding to a day full of interest. It was marked too by being amongst the wettest Field Meetings the writer can recall, though entirely appropriate to a home of 'Atlantic' bryophytes.

David Clarke

A colour-ringed Kentish Plover on the Solway

On 9th May, after a productive afternoon bird-watching from Bowness Viaduct (resulting in four Long-tailed Skuas and a lovely summer-plumaged Black Tern), I decided to check the regular high tide roost of small waders at Bowness railings. I quickly saw that there were many waders present, but checking through them produced only a few Sanderling as being in any way unusual. I moved on to a last check from the small car park and was scanning through the few Ringed Plover there when I was surprised to see a bird that had a bright ginger cap, and was obviously a male Kentish Plover in breeding plumage.

In a state of some surprise I got my camera and took a few shots (Plate 1). Unfortunately, I could not reach any of my mobile phone contacts before the bird had moved onto the sand with the main Dunlin and Ringed Plover flock and had begun to feed actively. Within a few minutes the flock had started to disperse, with some waders flying up to feed in Port Carlisle harbour, while others crossed over to the Scottish side of the Solway. Just as this happened, a couple of other local birders drove up and I quickly recruited them to help me relocate the Kentish Plover. Unfortunately we were unable to do so and, despite looking for an hour and a half, and on the high tides for the following few days, the bird was never seen again.

Interestingly, the Plover had several colour rings and flags on its legs, and after examining the photographs and doing some research on the web, I was able to discover that it would have been ringed on breeding grounds in Brittany as part of a project running since 2007. As far as I can ascertain this is only the fourth Kentish Plover seen in Cumbria, the most recent otherwise being in 1994 at Walney.

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The hoverfly *Microdon myrmicae* Schönrogge *et al.*, new to Cumbria, with notes on the distribution of *Microdon mutabilis* (L.) in the county

Microdon hoverflies are curious dumpy flies with short wings and furry bodies. Four very similar species are recorded in Britain (Stubbs & Falk, 2002). Their larvae are found in ant nests, where some are known to predate the ant larvae. Different species of *Microdon* are dependent on particular species of ant. *M. myrmicae* was only recognised as distinct from *M. mutabilis* in 2002. Although *M. myrmicae* is said to be generally smaller, the adults of these two closely related species are indistinguishable and the species can only be reliably separated on characters of the larva or puparium. Before the split, *M. mutabilis* was widely

recorded in Britain although not common and was considered Nationally Scarce. However, most of the confirmed recent records have been of *M. myrmicae* and so most records formerly attributed to '*M. mutabilis*' are now believed to relate to *M. myrmicae*. *M. mutabilis* is now only confirmed from Mull, Inverness and the limestone areas of south-west Ireland (Ball *et al.*, 2011). *M. mutabilis* larvae are principally found in the nests of the large black ant *Formica lemami* in chalk or limestone grassland, whilst *M. myrmicae* has been reported from the nests of *Myrmica* ant species in wetland situations.

Data collated at Cumbria Biodiversity Data Centre (CBDC) reveals that '*M. mutabilis*' has been reported in Cumbria, on the limestone hills around Morecambe Bay, since the early 20th century, when A.E. Wright of Grange-over-Sands knew it at Arnside and Grange. Dr Neville Birkett collected the species at Helsington Barrows (SD4890), Barrowfield (SD49V) and Gaitbarrows (SD4877) in 1955, 1962 and 1987 respectively. Keith Alexander recorded '*M. mutabilis*' at The Hollins (NY105032) and Nether Wasdale (NY1204) in 1991, and the Duddon Mosses (SD220855) in 1993 as part of National Trust property surveys. Barry Brigden recorded the species at Heathwaite (SD4476) on 22nd May 2000. Finally, Liverpool Museum staff listed the species from a survey of Smardale Gill NNR that they undertook in 2007 and 2008 (Knight, 2009). However, since the voucher specimens for any of these records are unverifiable adults, all Cumbrian records of *M. mutabilis* are presently ascribed to *M. myrmicae* by the national recording scheme (Ball *et al.*, 2011).

F. lemami make nests beneath stones in limestone grassland. Turning over suitable stones in this habitat exposes the ant nests and the *Microdon* larvae and puparia (both live and empty) are often obvious if present. This is a very much more efficient way of recording *Microdon* than looking for adults, which are rarely encountered. In this way I have found *Microdon* early stages in *F. lemami* nests on the limestone hills of Whitbarrow Scar (1996, 1998, 2003, 2004), Hampsfield Fell (2003), Yealand Allotment (2009) and Sizergh Fell (2010). David Benham has also sent me puparia found in similar circumstances at Heathwaite on 22nd April 2009. Using a hand lens, the different pattern of reticulation on the dorsal surfaces of the larvae and puparia can be readily distinguished and the species thus identified. All these specimens are assignable to *M. mutabilis* (L.) *sensu stricto*. From these data, and on present understanding of the species' UK distribution, the Morecambe Bay limestone hills would appear to be a nationally important centre of population for *M. mutabilis*.

Until last year, the only adult *Microdon* that I had personally encountered in the field was collected at Green Tarn on Claife Heights (SD3698) on 23rd June 1990, where it was flying low over a *Sphagnum*-covered pool and a long way from the

typical limestone grassland habitat of *M. mutabilis*. Ever since the existence of *M. myrmicae* and its association with wetland habitats came to my attention, I thought it likely that this specimen was in fact *M. myrmicae*. However, as the adults cannot be distinguished, it had to remain an unanswered question. During the Society's trip to the mire at Cummaccatta Wood in Borrowdale on 19th June 2010, I again caught an adult *Microdon* (Plate 4a), and observed another flying about the *Sphagnum* lawns of the mire. Returning to the site on 22nd May 2011, I found two live and one empty *Microdon* puparia in a hummock of *Sphagnum* in the wettest part of the mire and another empty puparium in another similar *Sphagnum* hummock. In both cases the *Microdon* were closely associated with nests of *Myrmica scabrinodis* and *M. ruginodis* ants present in the *Sphagnum* hummocks.

These *Microdon* puparia (Plate 4b) were readily identified as *M. myrmicae* and provide the first confirmed record of the species in Cumbria. A couple of weeks later, on 4th June, I captured another adult *Microdon* flying low over *Sphagnum* on Honister Pass. Given the habitat I am confident that this species, and the earlier specimen from Claife Heights, can also be assigned to *M. myrmicae*. Indeed, in the collection at Tullie House Museum, these two specimens, together with one that I reared from one of the puparia from Cummaccatta Wood, can be seen to be noticeably smaller than the series of *M. mutabilis* that I have reared from the limestone hills in the south of the county (although the size variability within *M. mutabilis* is too great to allow this as a reliable identification character).

It now seems acceptable to refer records of adult *Microdon* from the limestone hills of Morecambe Bay to *M. mutabilis*. The 2008 record from Smardale Gill, with its high quality limestone grassland, is also probably of this species. Those records from National Trust properties in the Lakeland dales and Duddon Mosses are most likely to relate to *M. myrmicae*.

References

- Ball, S.G., Morris, R.K.A., Rotheray, G.E. & Watt, K.R. (2011) *Atlas of the Hoverflies of Great Britain (Diptera, Syrphidae)*. Biological Records Centre, Wallingford, Oxon.
- Knight, G. (ed.) (2009) *The invertebrate biodiversity and conservation value of Smardale Gill NNR*. National Museums of Liverpool. Unpublished report.
- Stubbs, A. E. & Falk, S.J. (2002) *British Hoverflies*. British Entomological & Natural History Society, Reading.

Stephen Hewitt, Tullie House Museum, Carlisle

The bumblebee *Bombus (Pyrobombus) hypnorum* (L.) new to Cumbria

Little did I expect that my regular walk on 19th May 2011 along the River Eden in Carlisle would result in the discovery of a species of bumblebee new to Cumbria. The weather was overcast with no real sunshine and as a result there had been nothing much in the way of insects to look at as we walked along. This meant that when we did find a small patch of raspberry near the cricket pavilion (NY39.56), with several bumblebees actively feeding despite the cool temperatures, I stopped for a closer look.

I was very glad to have done so, because the first insect I looked at was a worker of the species *Bombus hypnorum*, the so-called Tree Bumblebee, unmistakable with its combination of ginger thorax and black-and-white banding on the abdomen. I was aware that it had been recorded in north Lancashire in 2010, and as it had been rapidly moving north since its first discovery in England in 2001, I knew it was soon likely to reach Cumbria. Nevertheless, I had not really expected to find it so far north in the county.

Despite the grey conditions, I quickly went home for my camera and managed to get some record shots (see Plate 5). Surprisingly, it was still around when I was next able to check it ten days later. Indeed, it continued to remain faithful to the small patch of raspberry for the best part of a month. On the day I had found the bumblebee, I sent the record to Stephen Hewitt. On the following day he found a *B. hypnorum* in the grounds of Tullie House Museum, where I subsequently saw several over the next few weeks.

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First Cumbria record of the Vagrant Emperor dragonfly (*Anax ephippiger*)

A visitor to the area, Mark Hallet, contacted me in May to report a virtually certain occurrence of this species at Tarn Hows (SD33.99) on 17th April 2011. He was able to watch it perched on a bush at very close range for about a minute. From previous experience, he was in no doubt that it was a male Vagrant Emperor, the bright blue band at the base of the abdomen being its most noticeable feature, and one it shares most nearly with the Lesser Emperor (*Anax parthenope*) – which now occurs regularly in the UK.

Adrian Parr of the British Dragonfly Society (pers. comm.) has pointed out that Lesser Emperors had only really started appearing in NW Europe during the last weeks of May, whereas early spring 2011 had seen ‘unprecedented arrivals’ of Vagrant Emperor. There had been some 35-40 reports in Britain (almost more records than the previous all-time grand total). Numbers had also been seen in

Belgium, The Netherlands and even the Faroe Islands. The peak of this influx was towards the end of April, and in Britain it was concentrated in western regions – both features that fitted the Cumbrian sighting. The whole episode has been documented in detail by Parr (2011).

The Vagrant Emperor is a very southern species, increasingly found around the Mediterranean area. It is well known for sporadic occurrence far beyond its normal range, at almost any time of year. The only previous record close to Cumbria was on 3rd November 1996 at Caerlaverock, Dumfriesshire, when the specimen was brought to Tullie House Museum.

Reference

Parr, Adrian J. (2011) The Vagrant Emperor *Anax ephippiger* in Britain and Europe during early 2011. *Journal of the British Dragonfly Society*, 27(2): 80-87.

David Clarke, Burnfoot, Cumwhitton, Brampton CA8 9EX

Early-season emergent White-faced Darter (*Leucorrhinia dubia*) as prey of Common Lizard (*Lacerta vivipara*)

Whilst filming for the White-faced Darter re-introduction project at the Scaleby Moss donor site, the director Simon Baxter drew attention to a Common Lizard with prey at a pool edge. Unusually, the lizard did not retreat on close approach and was captured on camera (Plate 6). It soon became evident that it was eating a freshly emerged White-faced Darter, the exuvia of which was close by. The dragonfly had fully expanded its wings – making a large meal even for what was judged a fully grown female lizard. In the usual reptile manner, the lizard was swallowing its prey whole, head first, which took it several minutes to complete. The insect’s body was still relatively soft and not fully expanded. Its movements during the critical emergence phase may well have attracted the lizard’s attention. As soon as its meal was ingested the lizard rapidly disappeared into the undergrowth. This event took place on 27th April 2011, an extremely early date for White-faced Darter emergence.

David Clarke, Burnfoot, Cumwhitton, Brampton CA8 9EX

Grey Club-rush (*Schoenoplectus tabernaemontani* (C.C. Gmel.) Palla) new to the English Solway

After the Society’s outing to Drumburgh Moss and Bowness CWT Reserve on 23rd July 2011, I spent a little time on the upper saltmarsh to the west of the

Herdhill Scar viaduct.

Casting about for some specimens of Slender Spike-rush (*Eleocharis uniglumis*) for an ongoing project, I was surprised to see a patch of tall grey-green club-rush stems emerging from one of the deep pools close to a patch of Alder saplings (Plate 7). Remembering that saltmarsh was the characteristic habitat for a species of club-rush, the Grey Club-rush (*Schoenoplectus tabernaemontani*), not known on the Cumbrian side of the Solway, I collected a few shoots to confirm the identification. The differences between the much more frequent Common Club-rush (*S. lacustris*) – which tends not to occur by the shore – and Grey Club-rush are somewhat subtle. (Indeed, although currently regarded as separate species, the two have been treated as subspecies by some authors.) The stems here are indeed rather grey-green (mid- or dark green in Common Club-rush); the stigma is fairly reliably forked into two in Grey Club-rush (rather than into three as is typical in Common Club-rush); and – most obviously – the glumes in the flowerheads are finely speckled with minute red dots (papillae), absent in Common Club-rush, and have a slightly different shape (Jermy, *et al.*, 2007). Mike Porter visited the site a few days later, and kindly confirmed the identification.

I returned with more time to spare on 15th September to have a closer look and a wider search. I found the plant still in just the one area (around NY 2125.6235), occurring in a series of small pools, some shallow and some (alarmingly) deep. In a couple of pools the shoots were growing densely and were the dominant vegetation, and elsewhere there were scattered shoots in damp grassed-over patches. The clumps were scattered over an area estimated at about 10 × 5 metres, with probably over a thousand shoots.

Associates noted were:

<i>Agrostis stolonifera</i>	Creeping Bent
<i>Carex otrubae</i>	False Fox-sedge
<i>Eleocharis uniglumis</i>	Spender Spike-rush
<i>Elymus athericus</i> × <i>E. repens</i>	Sea Couch × Common Couch
<i>Festuca arundinacea</i>	Tall Fescue
<i>Juncus effusus</i>	Soft Rush
<i>Juncus inflexus</i>	Hard Rush
<i>Juncus maritimus</i>	Sea Rush
<i>Oenanthe lachenalii</i>	Parsley Water-dropwort
<i>Ononis spinosa</i>	Spiny Restharrow
<i>Potentilla anserina</i>	Silverweed

The species is known from a number of sites along the Scottish shore of the Solway (Preston *et al.*, 2002), but this appears to be its first record from the

Cumbrian Solway and the first confirmed for v.c. 70. Its previously known locations in the county are along the Kent Estuary in upper Morecambe Bay, with a few other sites, not currently known, or not confirmed, elsewhere along the south Cumbrian shore (Halliday, 1997). Due to the transient nature of saltmarshes, with constant deposition and erosion, plants which favour these habitats tend to be efficient colonizers, reproducing by seed or from rhizomes or other vegetative fragments redistributed by tidal currents. It will be worth keeping an eye out for this tall and conspicuous species along the Solway shore, since it may be in a stage of active spread. To judge from the current find, the places to look would be in small pools in sheltered sites along the uppermost fringes of the saltmarsh, where there is some surface flow of fresh water.

References

- Halliday, G. (1997) *A Flora of Cumbria*. Centre for North-West Regional Studies, University of Lancaster. Lancaster.
- Jermy, A.C., Simpson, D.A., Foley, M.J.Y., & Porter, M.S. (2007) *Sedges of the British Isles*. BSBI Handbook No. 1, Edition 3. Botanical Society of the British Isles, London.
- Preston, C.D., Pearman, D.A., & Dines, T.D. (2002) *New Atlas of the British and Irish Flora*. Oxford University Press. Oxford.

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Yellow Bartsia (*Parentucellia viscosa*) at Watchtree Nature Reserve

Whilst on a walk at Watchtree NR, Great Orton, on 18th August 2011, we noticed a group of small plants with yellow flowers which at first glance I thought were Common Toadflax (*Linaria vulgaris*), particularly as they were on the loose gravelly edge of one of the concrete runways and this is a plant I would associate with waste ground. Closer inspection revealed that the plants were extremely sticky with toothed opposite leaves and the flowers were open-mouthed with a three-lobed lower lip. I was not certain of the identification, so I consulted my trusty Fitter, Fitter and Blamey (1985) and made a tentative diagnosis of Yellow Bartsia (*Parentucellia viscosa*). According to *A Flora of Cumbria* (Halliday, 1997) this plant has been recorded in recent years only on North Walney, although there are historical records from the Silloth area.

We returned to Watchtree on 20th August with a field guide to confirm the identification and take some photographs (Plate 8), before communicating the find

to Frank Mawby and Jeremy Roberts. Jeremy visited the site on 22nd August and counted 65 spikes, 15 of which were relatively large plants (to at least 20 cm) and still with open flowers at the top of the spikes. Most of the plants were much smaller, and a majority were over-flower.

The area that is now Watchtree Nature Reserve was farmland that was commandeered during the 1940's for use as a satellite air base, with several concrete runways being laid down. After the war it reverted to farming, much of it arable, until the 2001 Foot and mouth Disease outbreak, when it saw the burial of half a million animal carcasses. Given this history, it is interesting to speculate how and when the species arrived on site. There are a lot of alkaline areas at the edge of runways where the concrete is breaking up and other species such as Common Centaury (*Centaureum erythraea*) have found a niche. During the 2001 Foot and Mouth disease outbreak, there was a huge amount of soil disruption in this area and materials were brought in from off site, particularly brick rubble from 'wherever we could get it' (R. Timmins, pers. comm.). Following completion of the graves and landscaping of the site a variety of seed mixes were used on adjacent meadows, but none of these had Yellow Bartsia as a known constituent. There has been some recent work in the area close to where the plants were found that involved importing gravel. This was ex-railway ballast but is granite and unlikely to have brought seeds in (F. Mawby, pers. comm.).

The question remains as to whether this is a recent introduction or has been onsite for some time. The plants are all within a small area and searching habitat of similar appearance failed to reveal any further spikes. As Yellow Bartsia is an annual, it is to be hoped that sufficient seed will be set to allow the colony to continue.

References

- Fitter, R., Fitter, A., Blamey, M. (1985) *The Wild Flowers of Britain and Northern Europe*. Collins, London.
- Halliday, G. (1997) *A Flora of Cumbria*. Centre for Northwest Regional Studies, University of Lancaster, Lancaster.

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Beetles in ants' nests: pampered guests or tolerated lodgers?

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Many species of beetle are associated with the nests of various ants. As described by Donisthorpe (1927), they exhibit three different lifestyles: 'welcome guests' (symphiles), such as *Lomechusa*, which exudes secretions to which the ants are addicted and in return feed the beetles; 'tolerated lodgers' (synoeketes), which are chiefly scavengers, such as the larvae of *Potosia* or *Clytra*; and 'hostile persecuted lodgers' (synechthrans), such as *Myrmedonia*, which prey on the ants or their larvae.

Thirty-three species are found exclusively or predominantly in the nests of *Formica rufa* (*sensu lato*), but ten of these have not yet been seen in Cumbria. In fact, ants' nests have hardly been worked for beetles here, so nearly all our records are due to Day (and Britten) on visits to Ashness Woods in Borrowdale in 1906 and 1907 (Day, 1907). Thirteen species in all were variously noted by Day (1912, 1923) as occurring there with *Formica rufa* (now recognised as the Northern Wood Ant, *Formica lugubris*). Rather surprisingly, he also reported a few species at Caldbeck in 1924 – but Stephen Hewitt informs me that Wood Ants had been introduced there as pheasant food. The only site for the true *F. rufa* in Cumbria is around Arnside, in v.c. 69. Ants were very numerous on Arnside Knott and in Grubbins Wood in June and August this year, but I did not come across any associated beetles. Seven other species on Donisthorpe's list have been recorded in Cumbria, but these are mostly common and widespread species from other habitats which very occasionally occur in wood ants' nests. Recently I have visited Ashness Woods in an attempt to update Day's data. First find your nest! Those of *F. lugubris* are much smaller than those of *F. rufa*, but on 14th September 2009 I located one on a bank under fir trees near the edge of the woods, at NY 269.182. It was about a foot high and two feet wide. Half an hour's work yielded only one *Oxyroda haemorrhoea* and one *Othius myrmecophilus* in moss near the nest. Both are widespread species, and not confined to nests. Similarly, on 9th September 2010, a whole hour spent on sifting nest material produced only two species: two of *Notothecta flavipes* and one of *Leptacinus formicetorum*, in the base of the nest. Both these dates were rather late in the year, though not too late for beetles, and at least the ants, though numerous, were not too aggressive.

A third attempt, on 18th April 2011, was more successful – after fifty minutes wasted searching for the nest. There were many ants active on a bank, but the nest was further into the wood than I had remembered. I neglected Donisthorpe's advice ('it is best to start by turning up the sleeves and fastening the bottom of each trouser-leg with a piece of string') but fortunately there were hardly any ants in the nest itself, though many were running around in the grass and on a log close by. So I

could spend fifty minutes with impunity, sifting five handfuls of nest material from the top and inside the damper base. It is quite possible to identify such beetles *in situ*, but on this occasion I was able to collect and bring home for checking 95 specimens (duly returned to the nest next day).

These were as follows: *Oxypoda formiceticola* Märk., 59; *Notothecta flavipes* (Grav.), 10; *Lyprocorrhe anceps* (Fr.), 3; *Leptacinus formicetorum* Märk., 6; *Othius myrmecophilus* Kies., 2; *Thiasophila angulata* (Fr.), 1 (or more passed over amongst *Oxypoda*); *Amidobia talpa* (Heer), 5; *Acrotrichis montandoni* (All.), 8; *Stenichnus godarti* (Latr.), 1. The first seven species, all Staphylinids, were recorded by Day a century ago. The tiny 0.9 mm *Acrotrichis* (Ptiliidae) was found by Britten in rotten hay at Great Salkeld, but is a widespread myrmecophile in *F. lugubris* nests in Yorkshire. *Stenichnus godarti* (Scydmaenidae) is a rare (RDB3) species, only 1.8 mm long, found in rotten wood and litter as well as with *F. rufa*. This is a first record for Cumbria.

Another species, the large orange and black leaf-beetle *Clytra quadripunctata*, has larvae which are synoecious, feeding on organic refuse and sometimes also on the ants' eggs. The adult beetles gnaw the leaves of birches and hazels near the nests; they were recorded at Ashness by Day in 1897 and 1900, by Carlisle Natural History Society in c. 2000, by myself in 2003 and by David Clarke in 2011 (Plate 9). It has also been noted elsewhere – at Arnside Knott (in 1980, and by Jim Thomas in 2007), and at Ulpha by John Read in 2000 – the last presumably near *F. lugubris*.

Four of Day's species from Ashness await 21st century rediscovery: the large predatory Staphylinid, *Quedius brevis* from 1907 was still at Ashness c.1960 (W. F. Davidson); *Dinarda märkeli*, one of which was seen by Day on 13th April 1906, and the two small (3 mm) *Monotoma* species (which are very hard to detect as they lie motionless and resemble pine needles). *M. angusticollis* was a singleton in 1906; the less rare *M. conicicollis* was in some numbers in 1906, and later seen by R. Skinner in Ashness Wood in the summer of 1992. It may be worth noting that the scarce 7-spot Ladybird *Coccinella magnifica* is not in fact an inhabitant of wood ants' nests at any stage: it is found on bushes usually within 40 metres of a nest, apparently immune to the ants which attack other ladybirds and its competitors (Majerus, 1994).

References

- Day, F.H. (1907) Coleoptera in Cumberland in 1906. *Entomologist's Monthly Magazine*, 43: 63-64.
- Day, F.H. (1912 & 1923) The Coleoptera of Cumberland. *Transactions of the Carlisle Natural History Society*, Vol. II (1912): 70-107 & Vol. III (1923): 201-256.
- Donisthorpe, H.St J..K. (1927) *The Guests of British Ants; their Habits and Life-histories*. Routledge, London.
- Majerus, M. E..N. (1994) *Ladybirds*. Collins (New Naturalist series), London.

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Information for Authors

The *Carlisle Naturalist* publishes material on all aspects of the natural history of Cumbria. General articles, results of personal research, news items, records and letters of relevance to Cumbrian naturalists are welcomed. Material accepted for publication must not be submitted in a similar form to any other journal.

Material should be clearly legible – if type-written, then double-spaced on one side of white A4 paper. Material by post should be sent to David Clarke, Burnfoot, Cumwhitton, Brampton, Cumbria CA8 9EX.

Computer files should be in rich text format or Microsoft Word and e-mailed to david.clarke19@virgin.net, or submitted on CD/DVD accompanied by a paper copy. **Bold** and *italic* may be applied to text, but do **not** attempt any other formatting, as this then has to be removed on import.

References should be given in full at the end of the article or note. Authority names should be given in full.

Illustrations should be in black ink; they must be originals and not photocopies. Whilst every care will be taken of original artwork, the editor can not be held responsible for any loss or damage.

Authors of papers two or more pages in length will be provided with 10 reprints. Papers may be submitted to a referee.

Opinions expressed in the *Carlisle Naturalist* are not necessarily shared by the Council of Carlisle Natural History Society or the Editorial Panel.

Standard abbreviations used in this issue:

v.c.: vice-county; NNR: National Nature Reserve

For Conservation status definitions (e.g. Nationally Scarce, etc) consult: www.jncc.gov.uk/species/Species_Status_Assessment/hierarchyoflists.htm

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Winter Programme 2011/12

(Wednesday 7.15 pm, except where stated)

5th October: ‘Red Grouse and birds of prey - The Langholm Moor Demonstration

Project’ Illustrated talk by Graeme Dalby

19th October: Members’ Night Contributions from the membership

2nd November: ‘Wild Ennerdale’ Illustrated talk by Gareth Browning

16th November: ‘Natural History of Vancouver Island’ Illustrated talk by Roy Atkins

30th November: ‘Norway Nature’ Illustrated talk by Brian & Sophie Fuller

14th December: ‘Botswana’ Illustrated talk by Ashley Boon

4th January: ‘Wildlife in the North’ Illustrated talk by Edmund Fellowes. Joint meeting
with Cumbria Bird Club

**18th January: ‘Relative sea-level changes and coastal evolution in the Solway Firth
and Cumbrian coast’** Illustrated talk by Dr Jerry Lloyd. Joint meeting with
Cumberland Geological Society; commences at 7.30 pm

**21st January (Saturday): Field Meeting to Loch Ken, Galloway (the ‘wild goose
chase’)** Leader: John Hamer. Depart 9.00 am, Carlisle College

1st February: ‘Marine Conservation in the Irish Sea’ Illustrated talk by Cheryl
Nicholson, Cumbria Wildlife Trust

15th February: ‘Dragonflies in Cumbria and the Borders: a 21st century perspective’
Illustrated talk by David Clarke

29th February: AGM & Members’ Night AGM followed by contributions from the
membership