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Bird's-foot Sedge

Contents

Society Announcements

Publication Exchange

An exchange of publications has been agreed with the Glasgow Natural History Society. In exchange for the Carlisle Naturalist our Society will receive copies of The Glasgow Naturalist. Copies of this journal will be held in the Society's library at Tullie House.

Kingmoor Nature Reserve survey report

The results of the Society's survey of Kingmoor Nature Reserve in 1995 for Carlisle City Council is about to be issued.

Kingmoor was established as a nature reserve in 1913. Comparison with historical records collected by the Society and compiled in the Museum shows that there has been a major change in the species composition of the Reserve from the early part of the century to the present day. The shift has generally been from heathland species towards woodland species together with a general loss of wetland species. Although many of the interesting species once found on the Reserve have gone and the site is now of less interest to the naturalist than once it was, there is still much of interest and value with some of the losses balanced by the arrival of new species as the habitat has changed.

A copy of the report containing details of the species and habitats recorded on the site will be deposited in the Society's library.

Second Nature Organic Compost

Carlisle City is continuing with this scheme of providing good quality recycled compost for sale by local organisations. As last year, 80-litre bags of compost will be available from the Society at £3.00 a bag. Buy your compost through the Society and you will be helping to save valuable peatland habitat and the environment, as well as supporting Carlisle's recycling scheme and the Society – it's got to make sense!

Jeremy and Margaret Roberts have a stock of the compost at Wetheral Pasture – contact them on 01228 560164 to arrange your purchase.

Additions to the Library

John Holland has very kindly donated two books on Trinidad and Tobago to the library:

Barcant, M., 1970. *Butterflies of Trinidad and Tobago.* London: Collins
Herklots, G.A.C., 1961. *The Birds of Trinidad and Tobago.* London: Collins.

These are available for loan to anyone planning a trip to the Caribbean – providing they take the Editor with them!

(continued page 24 ⇨)

Field Meetings

28th September 1996: Talkin Tarn (Fungus Foray) Leader: Geoff Naylor

As last year, we have to report a very dry early-season for fungi: in fact if anything the soils were even drier than last year. There had been some rain within the previous few days, and this had no doubt encouraged a few fungi to risk an appearance. In the event, the list of species was better than expected, although not at all representative of this very rich site. A group of around 20 members and non-members found the numbers of fruit bodies sparse, and often in poor condition. As is often the case in dry conditions, the many rotting stumps provided many of the better specimens and more interesting finds.

Of the few woodland floor species in evidence, the Russulas provided amusement, with the abundant *Russula fellea* testing olfactory sensitivity: it is supposed to smell of Pelargonium, though to several noses 'stewed apple' was more readily detected. The several 'far-gone' caps of *Russula nigricans* lived up to their specific name, which apparently means 'blackening'. The Wood Woolly-foot *(Collybia peronata)* was binding leaves with its woolly feet, and various Boletes were present, including the spectacular *Boletus erythropus*, with red-brown coloration and with flesh which blues at amazing speed when exposed to the air.

On a large beech stump, a huge Artist's Fungus (*Ganoderma* species) had stained the grass below it a rich brown with the vast deposition of its spores, and nearby, a cluster of Dead Men's Fingers *(Xylaria polymorpha)* poked darkly from the moss carpet on a very old stump. One was lying nearby, broken open to reveal the startling coconut-like fibrous white interior. Nestling inside was a tiny slug, which Geoff instantly announced was the Hedgehog Slug *(Arion intermedius)*; this was duly examined, to accompanying cries of surprise, by those – most of us – unfamiliar with the species, who were able to see, under a 10 × lens, the humped and spiny appearance of the beast when contracted.

An unusual fungus growing in a cluster at the base of an old stump was *Lentinellus cochleatus*, related to Oyster Fungus and other brackets, but with variously convoluted, funnel-shaped, or shoehorn-shaped, caps.

Stinkhorns *(Phallus impudicus)* were frequent in one patch, including a 'nest' of several 'eggs' together, with one impressively expanded alongside.

The only *Amanita* of the day was a splendid Fly Agaric *(A. muscaria)*, but this was soon revealed to be a most convincing model, made by Wendy Walker in case we found no fungi at all on the day!

A female Red-crested Pochard which had been present for a week was discerned out

on the water, through optics of varying quality, and with a variety of other wildlife, added to the interest of the day. Geoff took a few specimens home for further perusal, and a final tally of 44 species was made.

Returning to the car park, we felt the first few spots of what turned out to be a torrential night of rain, and over the following few days, fungi at last had a chance to make something of the season – though too late for this visit. The day was, however, chronicled for ever in the annals of this society, since one of the photos taken by David Clarke at the meeting appears in the Society's recent volume *Cumbrian Wildlife in the Twentieth Century.*

Jeremy Roberts

1st February 1997: Loch Ken & Solway Coast **Leader: Geoff Horne**

The annual 'wild goose chase' to Dumfries and Galloway took place on Saturday 1 February. Nine members turned out on a day when the weather looked anything but promising.

En route west to Annan, 33 Whooper Swans were seen in the fields at Mossband and at Annan a large flock of around 500 Pink-footed Geese were seen at close quarters, feeding in the fields near the road. It was here that we saw our first Redwings and Fieldfares of the day.

Moving on to the little village of Newbie on the Solway coast just west of Annan we were able to watch large numbers of waders at roost. These included: Bar-tailed Godwit, Knot, Golden Plover and Dunlin as well as Lapwing and Oystercatcher. Out on the firth the usual large raft of Scaup was seen. Further out still over 20 Great Crested Grebes and a single Red-breasted Merganser could be seen.

The road towards Caerlaverock yielded the expected Buzzard – at close range perched in a tree – as well as a good variety of finches and buntings. A number of medium-sized flocks of Barnacle Geese were seen, the biggest of which was estimated to contain 2,000 to 3,000 birds. In addition another flock of Whooper Swans was grazing in the fields adjacent to the Reserve access road.

Lunch was taken at the Merse car park on the River Nith. Here again groups of Barnacle Geese were feeding on the merse edge and the roosting Lapwings were put up by a Peregrine Falcon. The weather, which until this point had been reasonable although very cold, deteriorated during the drive through Dumfries although it did not prevent some members of the party seeing five Buzzards in the air together.

At Auchenreoch Loch the open stretches of water held good numbers of duck; including Teal, Goldeneye, Tufted Duck and Mallard, as well as a large group of over

30 Goosander. The adult male Smew we were looking for failed to put in an appearance.

By now the weather was hardly conducive to bird-watching and it was decided to carry on to Carlingwark Loch at Castle Douglas before making our way home. Carlingwark produced all the usual ducks and swans, but the interesting feature was the large number of Pochard. It was whilst watching these ducks that a flock of Siskins was seen feeding in the tree tops.

The total number of bird species seen up to this point of the day was 59. The trip back to Gretna was uneventful, but the spectacle of the massive flock of Starlings – estimated at between 200,000 and 500,000 birds – doing what was described as an "aerial ballet" prior to going in to roost finished off a good day out.

Geoff Horne

Notes and Records

Bird notes for winter 1996/97

My recent lack of mobility has kept this winter's observations to the garden at Etterby, accessible points on the Solway, Longtown ponds, Caerlaverock and to chance roadside encounters. Generally the Scottish side of the Solway has produced more species, particularly raptors of which Kestrel and Buzzard were common. Overall, the winter has been mild and at the time of writing (28 February) there have been strong westerly winds for two weeks. I have drawn up a limited species list with notes from others.

Red-throated Diver: ten off Campfield on 18 Feb. (max. 48 – R. Armstrong). Also 25 off Silloth on 25 Dec. (D. West).

Great Crested Grebe: over 20 were regularly seen on the Solway (100 in Jan. count at Bowness viaduct – R.S. Atkins).

Little Grebe: ten were at Grinsdale on 22 Dec. (P. Wilson).

Whooper Swan: 18 at Whitrigg Bridge on 7 Nov., 50 at Mossband on 28 Nov.

Grey Geese: mixed flocks around Carlisle – e.g. 300 at Brunstock Beck west of the M6 on 20 Feb. (Joan Stuart). The peak numbers of **Pink-footed Geese** in the Solway Basin was nearly 20,000.

Barnacle Goose: over 10,000 at Burgh Marsh on 18 Feb., down to 900 by 20 Feb. Peak in the Solway Basin was about 18,000.

Shoveler: small numbers continuously present at Longtown.

Gadwall: a duck was present at Smalmstown on 23 Oct.

Pintail: eight at Seafield (NY 26) on 1 Nov., ten plus two at Bowness-on-Solway on 18 Feb.

Tufted Duck: 72 at Grinsdale on 22 Dec. (P.W.)

Scaup : seen off both sides of the Solway in rafts of up to 200.

Common Scoter: duck at Campfield on 18 Dec.

Red-breasted Merganser: small groups usually, but 115 at the viaduct (Bowness-on-Solway) for the January count (R.S.A).

Goosander: a duck at Campfield on 18 Dec. (rare here). Maximum of 130 at Talkin Tarn on 4 Dec. (G. Naylor).

Smew: 'redhead' at Parkbroom (R. Eden) on 28 Dec. (F.J. Roberts).

Kestrel: 15 seen along the roadside from Rockcliffe to Caerlaverock on 4 Dec.

Merlin: singles at Rockcliffe on 18 Dec. and Campfield on 6 Feb.

Black Grouse: 13 in Upper Geltsdale on 1 Jan. (R.S.A.).

Grey Plover: usually over 500 at Campfield.

Little Stint: 9 on 25 Oct. and one at Port Carlisle on 8 Nov (D.W.); 'last' individuals at Anthorn on 7 & 28 Nov. The unusual influx in September 1996 peaked at over 150.

Black-tailed Godwit: over 30 at Bowness dropped to one by 28 Nov. One at Grune on 26 Jan. – D.W. A maximum of 200 was at Caerlaverock (WWT).

Spotted Redshank: one at Grune on 26 Dec. and 5 Jan. (D.W.).

Green Sandpiper: one at Gretna on 23 Oct. Three at Carr Beds 26 Nov. – P.W.

Turnstone: scarce in 1996/97: two were at Campfield on 20 Feb.

Herring Gull: an albino specimen was at Port Carlisle in December (D.W.).

Little Gull: one at Silloth on 14 Dec. and one at Anthorn on 23 Feb. (D.W.). Two at Workington on 23 Feb. (Cumbria Bird Club).

Iceland Gull: one at Workington Harbour on 23 Feb. (CBC).

Glaucous Gull: one at Whitehaven on 23 Feb. (CBC).

Kittiwake: 150 off Bowness on 6 Feb., 50 on 20 Feb.

Common passerines were less common than in the previous winter.

Waxwing: one near Waterside, Wigton, on 1 Jan. (D.W.)

Willow Tit: four at Bowness on 14 Jan. (D.W.)

Tree Sparrow: 35 at Waterside in December (D.W.), six at Cargo on 19 Oct. (P.W.).

Spanish Sparrow: the wintering male came to peanut-feeders at Waterside, Wigton, throughout the period.

Chaffinch: a leucistic bird was at Thursby on 10 Jan. (P.W.).

Siskin: 60 at Waterside on 15 Dec. (D.W.). 50 in Coombes Wood, Armathwaite, 24 Feb. (F.J.R.).

Michael Tulloch

13 Riverbank Court, Etterby, Carlisle

Vagrant Emperor dragonfly reaches Solway

On 4 November 1996, David Patterson, a goose research worker at the Wildfowl and Wetlands Trust Reserve at Caerlaverock, Dumfriesshire, discovered a largish dragonfly at the edge of one of the reserve's pools. This was a late date for any such insect, and it soon became clear that the unexpected visitor was not a familiar species.

The dragonfly was alive though somewhat drowsy, and David was fortunately able to catch it by hand. A visit next day to Tullie House Museum enabled Steve Hewitt and I to confirm that it was a male Vagrant Emperor (*Hemianax ephippiger* Burmeister) – a species whose main range is to the south and east of the Mediterranean.

This appears to be the first occurrence of this insect on the Scottish mainland – the only other Scottish specimen having been in Shetland in 1970.

The November date is similar to some other occurrences of the Vagrant Emperor in Britain, and may relate to a main emergence of this insect in some part of its breeding range. Warm weather and strong southerly winds had been a feature of the preceding week, and doubtless helped the dragonfly to travel and survive.

Although noted for occasional long-distance movements – it is the only dragonfly recorded from Iceland! – *H. ephippiger* has only rarely been seen in Britain. The fact that records are spread over all seasons suggests that the country of origin of the immigrants may not always be the same. There have still been fewer than 20 instances since the first record, in 1903. Even by 1983 there had only been five, but records have been almost annual since then, doubtless due in part to the growing number of observers. Interestingly, a Vagrant Emperor occurred in 1995 at the Calf of Man (12 July) – not so very far from the Solway. The only Irish record was yet another 'Irish Sea' occurrence (Dublin, October 1913).

The Caerlaverock specimen still proved newsworthy enough to receive several column inches in *The Times* and a mention on Radio 4, as well as local news coverage. It has also featured in the W.W.T. January issue of *Wildfowl & Wetlands,* and *British Wildlife Magazine.* It remains the only record confirmed from 1996.

Finding evidence of long-distance movements – as well as more local dispersals – adds zest to the growing interest in dragonflies and dragonfly-watching. While the somewhat bizarre juxtaposition of a southern dragonfly and thousands of Barnacle Geese may not recur for a long time, opportunities to see unusual species seem on the increase nationally at present – as instanced by the huge influxes of Yellow-winged Darters *(Sympetrum flaveolum)* and others, mainly in southern England, in 1995 (*Carlisle Naturalist* **Vol. 3 (2)**: 32). Coastal sites, where dragonflies may rest on first landfall, or halt at the natural barrier of the sea, are turning out to be especially productive.

David Clarke
Tullie House Museum

Cumbria wood ant survey – progress report

The first year of this investigation has clearly confirmed that the Red Wood Ant *(Formica rufa)* has declined drastically in the Lake District since it was surveyed by John Satchell and Cedric Collingwood in the 1950s. It has gone from all the scattered locations in central and north Lakeland where it was almost certainly introduced to pheasantries in Victorian times. This is not surprising as these locations were all outside what seems to have been the northern limit of its natural range, ie. the carboniferous limestone fringing Morecambe Bay. What is more difficult to understand is why it has also disappeared from so many places on limestone on the north side of the bay where it used to be abundant, apart from the outskirts of Grange-over-Sands where it seems to be just hanging on.

Sites where it was formerly described as abundant are Old Park Wood and Witherslack Woods around the foot of Whitbarrow, which I have visited with Cedric Collingwood and where it definitely is no longer present although the habitat still looks right, and Limegarth Wood on Meathop Fell where I have not yet found any nests. I visited Brown Robin, the Cumbria Wildlife Trust reserve on Blawith Fell at Grange after Barbara Simpson had sent specimens of *F. rufa* to Steve Hewitt. In a recently thinned area I found two active nests, which Barbara thinks are the only ones, neither looked to be vigorous. On the opposite side of the valley in Eggerslack Wood I have so far found two nests, bringing the number on the north side of the Kent estuary to a grand total of four! While visiting Brown Robin I found *Myrmica sabuleti* – which is one of the less common small red ants – under stones on limestone grassland.

The good news is that only 2 km further south *F. rufa* is still abundant on Arnside Knott and nearby sites in the Arnside-Silverdale AONB. On a visit to the Knott on 21 October I was delighted to find wingless males of the 'guest ant' *Formicoxenus nitidulus* swarming on the surface of one of the nests. This tiny (3 mm) ant lives deep in the nests of various wood ant species, apparently helping itself to food but not harming its hosts, who generally ignore it. It is not known what percentage of wood ant nests contain it because it is so rarely seen, but this may well be the first record for Cumbria as Satchell and Collingwood did not find it during their survey (Collingwood, pers. comm.) – in spite of the large number of nests which they must have visited.

Meanwhile my own observations in Borrowdale, and information which I have received about the Duddon Valley Woods, suggest that the Hairy or Northern Wood Ant *(F. lugubris)* is still as numerous as it was in the 1950s. It was very interesting to see the colonies along the roadside above 'Surprise View' during Gary Skinner's fascinating Ant Workshop on 13 July (see *Carlisle Naturalist* **Vol. 4 (2)**: 28). The smaller interlinked nests contrast with the much larger isolated mounds made by *F. rufa* and show there is more difference between these two species than microscopic details of hairiness. Having watched *F. lugubris* workers active on the surface of a

nest in typical Lake District rain in April, I can safely say that this species is clearly adapted to Cumbrian weather. Although the surface was sodden, the nest was dry 5 cm below.

In 1997 I hope to consolidate information about the occurrence, or otherwise, of *F. rufa* around Grange-over-Sands, and to try to weigh up factors which may have contributed to its decline. If anyone knows of either species at any place which I have not mentioned I would be very interested to hear about it.

Neil A. Robinson
3 Abbey Drive, Natland, Kendal

A further note on the 14-spot Ladybird (*Propylea 14-punctata* (L).)

The note by Geoff Naylor and Stephen Hewitt on the occurrence of this Ladybird in Cumbria (*Carlisle Naturalist* **Vol. 4 (2)**: 36-7) has prompted this note. In my collection I have specimens taken in Westmorland (VC 69) as follows: Grange-over-Sands, 6.2.1924 taken by the late A.E. Wright; Meathop Moss NR, 21.8.1952 taken by Dr J.E. Thorpe who gave the specimen to me; Kendal Wood, New Hutton (my erstwhile home) on 19.9.1996.

Perhaps Mr Wright's specimen is the most interesting being probably the first record for VC 69. It has a name label (in addition to A.E. Wright's printed locality label) in a hand that is certainly not A.E. Wright's, of *Halyzia conglobata* L. *'Conglobata'* is given as a synonym of *14-punctata* (Kloet and Hincks, 1945). I have no details of the exact locality of capture of this specimen, but its date would indicate it to be a hibernating one.

It may be worth noting also that the elytra of both the earlier specimens are extensively black, while my capture at Kendal Wood has more or less typical spotting.

Reference

Kloet, G.S. & Hinks, W.D. 1945. *A Check List of British Insects*. Arbroath.

Neville L. Birkett
Beardwood, Carter Road, Grange-over-Sands

[Magnus Sinclair has also written detailing his own discovery of 14-spot Ladybird at Thurstonfield Lough in 1979. Magnus notes that the patterning on his specimen was of the 'anchor shape'. In addition he reports finding the beetle in Hawick in 1992 – Ed.]

Records of two uncommon ground beetles from Cumbria

Among some carabid beetles recently identified for me by Dr. Martin Luff were two interesting and local species.

The first was a single specimen of *Amara praetermissa* (Sahlberg, C.R.) which I found on 5 May 1996 in flood debris on the edge of the saltmarsh by the River Irt near Drigg (SD 0696). This would appear to be the second record for this beetle from Cumbria. One specimen was found by Dr. Roger Key in Clints Quarry NR near Egremont (NY 0012) in 1985 (Key, 1989). According to Hyman (1992) *A. praetermissa* is a nationally scarce (Notable B) species which is widespread but local in Britain.

The second species was *Pterostichus rhaeticus* Heer. One female was found under a small stone by the Crew Burn near Whitelyne Common (NY 5778) on 30 May 1994. Until recently this species was regarded as a variety of the more common *Pterostichus nigrita* and it can only be reliably separated by examining the right paramere of the male genitalia which is quite distinct (Luff, 1990). As far as I am aware this is the first record of *P. rhaeticus* from VC 70 (Cumberland) and also the first for Cumbria.

During 1996 I found *P. rhaeticus* at a second locality. On 13 June I found one specimen under a stone at the edge of a grass field just above Little Water near Overwater (NY2433). It is possible that more records of this species will come to light when specimens in collections are re-examined and checked.

I wish to thank Dr. Martin Luff (Newcastle University) for very kindly identifying my specimens and for information regarding the status of *P. rhaeticus*.

References

Hyman, P.S. (revised Parsons, M.S), (1992). *A review of the scarce and threatened Coleoptera of Great Britain.* Part 1. UK Nature Conservation: 3. Peterborough: Joint Nature Conservation Committee.

Key, R. & Parsons, M., (1989). *Invertebrate Site Register (Review of invertebrate sites in England, (Cumbria).* Nature Conservancy Council Report No. 102 (I).

Luff, M.L., (1990). *Pterostichus rhaeticus* Heer (Col.; Carabidae). A British species previously confused with *P. nigrita* (Paykull). Ent. Mon. Mag., 126: 245-249.

R.W. John Read

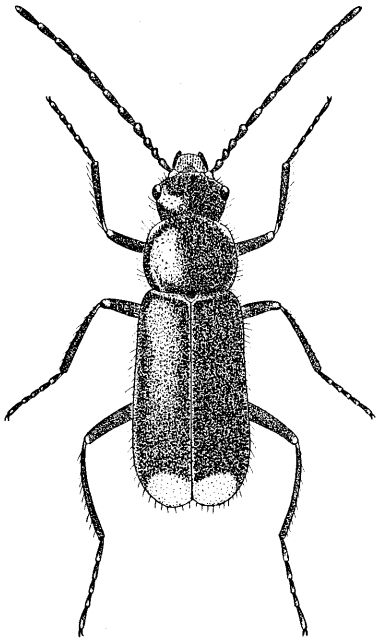
43 Holly Terrace, Hensingham, Whitehaven

The Malachite Beetle (*Malachius bipustulatus* (L.)) in north Cumbria

The Malachite Beetle is one of several brightly coloured beetles in the genus *Malachius*. The metallic green colour and bright red tips to the wing cases make them easy to recognise. *M. bipustulatus* is the only member of the genus recorded from Cumbria. This species is regarded as common on flowers in grassy places throughout England and Wales, but rare in Scotland.

M. bipustulatus was reported from Cumberland in the early part of the century but no recent records for the county have been received by the national recording scheme (Roger Key, pers. comm.). On learning of the dearth of recent records I realise that I have been remiss in not reporting three different finds of this species which I have made in recent years. These were from: meadows on the southern fringe of Orton Moss (NY3354) on 10 June 1993; Kingmoor Nature Reserve, Carlisle (NY3859) on 2 June 1995 and Holmwrangle Sand Pit (NY5147) on 15 June 1996. The first two localities are lush, flower-rich meadows while the third has a drier, more open vegetation structure – still with plenty of flowers.

It seems strange that active coleopterists living in the county, such as John Read and David Atty, have not also found this beetle (pers. comm.) Two possible explanations occurred to me – that the Malachite Beetle is restricted in Cumbria to the Carlisle area which has not received the close attentions of a coleopterist in recent years, or that this beetle is more readily found by sweeping the vegetation with a net. This method is one which I habitually use in searching for flies and bugs, but which is rather less frequently employed by entomologists hunting for beetles and might thus result in the species being over-looked by someone using other collecting methods.



Malachite Beetle *(R.W.J. Read)*

A survey of the historical records provides some information of the beetle's distribution in Cumbria. F.H. Day reported the species to be "common in woods" (Day, 1923). Reference to his collection, and those of G.B. Routledge and James

Murray, in the Museum adds more detail to this general comment. Cumbrian specimens in the Tullie House collections are:

F.H. Day Coll.	Petteril Valley [NY45]
	Orton [NY35], 17.6.1916 and 10.6.1927 (2 spns.)
	Baron Wood [NY44], 30.5.1900, Harry Britten.
	Durdar [NY45], 11.6.1943.
Routledge Coll.	Orton [NY35], 12.6.1898, F.H. Day and 14.6.1902, F.H. Day.
	Edmond Castle [NY45], -.7.1902.
Murray Coll.	Kirkbampton [NY35], 17.6.1916 (2 spns.)
	Orton [NY35], 9.6.1917 (2 spns.)

Thus, the beetle's known historical distribution in Cumbria was restricted to the Carlisle area. One might argue that as the above-mentioned collectors were all based in the north of the county it is not surprising that records of the beetle should come from that area. However, both Day and Murray collected extensively in west Cumbria and evidently failed to find the species there. The fact that John Read and David Atty, while making detailed study of beetles in other parts of the county, have not come across the Malachite Beetle and that whilst I have collected widely in Cumbria, I have only found this species in the north-east of the county suggests a real local distribution of this species centred on Carlisle. Further evidence for this distribution is provided by Dr. Neville Birkett who, while based in the south of the county, has only once collected this beetle in Cumbria – from the meadows fringing Orton Moss (NY 3354) on 11 June 1959 (Birkett, pers. comm.). Interestingly Neville specialises in the study of flies and moths and consequently frequently collects using a sweep net, as I do.

In conclusion, the Malachite Beetle, while common further south, appears to be distinctly scarce in Cumbria with a markedly local distribution centred on Carlisle. More fieldwork is required to establish whether this is the true Cumbrian distribution of the species, but if this proves to be the case then the relatively dry, sunny climate of the Carlisle area may well be an important factor.

My thanks to David Atty, John Read and Neville Birkett for contributing information for this note.

Reference

Day, F.H. 1923. The Coleoptera of Cumberland, Part III. *Trans. Carlisle Nat. Hist. Soc.* **Vol. III:** 70-107.

Stephen Hewitt
Tullie House Museum

Unseasonable fungi early in 1997

Despite the cold weather in late 1996, followed by the exceptionally dry January, some species of fungi showed fruiting bodies in January and February which are normally found in autumn.

On 15 January I was surprised to see Honey Fungus *(Armillaria mellea)* at Talkin Tarn. My earliest previous record was 15 August (in 1993). On 25 January I found both the aniseed-scented *Clitocybe fragrans* in Miltonrigg Wood and Wood Blewit *(Lepista nuda)* in my garden. I have seen both these species in January before, but only on one occasion, the former in 1990 (Lanercost) and the latter in 1992 (Miltonrigg Wood). Finally, on 28 February, I came across *Polyporus varius* at Lanercost. This is quite a rare fungus and I have never previously seen it earlier than late August.

Geoff Naylor
2 Fell View, Milton, Brampton

A note on the time-keeping of the Common Frog (*Rana temporaria* L.)

The timing of this issue of the *Carlisle Naturalist* has coincided with 'traditional' frog-spawning time in my garden, and prompted a quick look at the records to check the real constancy of this activity [of frogs rather than publications, that is!]

My pond is an artificial one, in a fairly exposed site at Cumwhitton, close to the Pennine scarp of the lower Eden valley (NY 5052, altitude 110 metres above sea level). With the exception of three seasons, I have complete records from 1981 onwards.

Winter conditions, and especially temperatures, in February / March have obviously varied quite considerably over the period, but despite this the frogs have remained creditably 'on cue': my records for first spawnings show a range of 21 days, but in 11 (78%) of the 14 years for which I have details they are within 4 days either side of the average of 6/7 March. This year's spawning was on 3/4 March – almost exactly the seasonal norm. With me, there is usually only one main spawning, all of which occurs within a period of about 2 days.

David Clarke

Bridges and wildlife

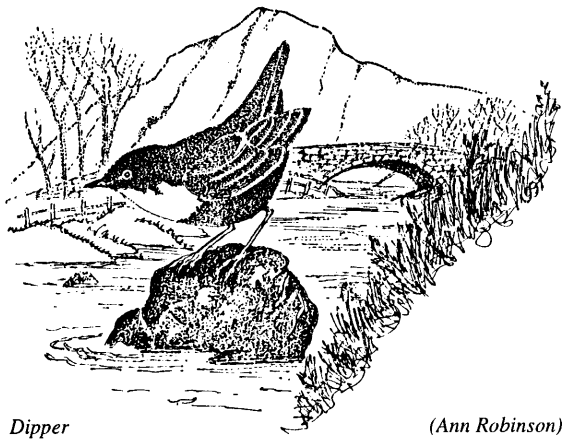
Geoff Norman

Flat 2, Justicetown Hall, Westlinton, Carlisle CA6 6AH

The Conservation of Bats in Bridges Project was started in June 1996 to continue and expand upon the work done by Cumbria's voluntary bat groups during the Bats in Bridges Survey (Norman, 1995). A major component of the project was to survey a large number of Cumbria's bridges, and 2,555 bridges have now been visited by Geoff Billington and myself. The survey has confirmed the importance of the county's bridges for Daubenton's Bats (*M. daubentonii*) and Natterer's Bats *(Myotis nattereri)*, and also found small numbers of Whiskered/Brandt's Bats *(M. mystacinus/brandtii)*, Pipistrelles *(Pipistrellus pipistrellus)*, and Brown Long-eared bats *(Plecotus auritus)*. These records, and the importance of Cumbria's bridges for bats are discussed elsewhere (Norman, *op. cit.*; Billington, G.E. & Norman, G.M., in prep.).

The survey also revealed a number of species other than bats associated with bridge structures and these are the subject of this article.

Several species of bird nest on bridges and the Cumbrian survey produced 311 records of at least 10 species. Many nests were not identified to species but of those that were the majority (90) were Dipper nests. Bridges are a significant nesting site for this species – one study in Wales found that 44.4% of nests were on bridges (Tyler & Ormerod, 1994). It has been suggested that Dippers prefer bridge sites to natural sites, and that the presence of suitable bridges allows Dippers to breed in lowland areas which are otherwise lacking in suitable nest sites (Tyler & Omerod, *op. cit.*). Unfortunately, like bat roosting crevices, Dipper nest-sites can be lost through bridge improvements, and the replacement of old stone and girder bridges. Dippers also roost in bridges, and in winter communal roosts may be found as birds congregate at suitable bridges which are warmer than surrounding natural roost sites. Few other species have been recorded roosting in bridges but Blue Tits are regularly found in crevices during dusk surveys.



Dipper *(Ann Robinson)*

Other regular bridge nesters are: Swallow – 31 records, Wren – 32 records, and Pied Wagtail – 16 records. There were only four records of

Grey Wagtail but this species was felt to be under-recorded. Occasional bridge nesters include Feral Pigeon, House Sparrow and House Martin. Species not confirmed as bridge nesters but which almost certainly use them are Blue Tit, Robin, Jackdaw, and Blackbird. Large viaducts can provide suitable ledges for cliff nesting species and there are two records of Kestrels, and one record of Ravens nesting in such sites. Peregrines have nested on at least one viaduct in the county.

Apart from bats, mammals do not use bridges to the extent that some birds do, but Otters and Mink regularly leave signs of their presence under arches and on bridge ledges. Both species may occasionally use drains, and hollows in bridge abutments as resting sites. Otter spraints were found at 5.5% (141) of all bridges surveyed, and 10% of bridges in Cumberland. Mink were either much scarcer or less likely to be recorded in this manner, as their scats were only found at 0.7% (17) of bridges.

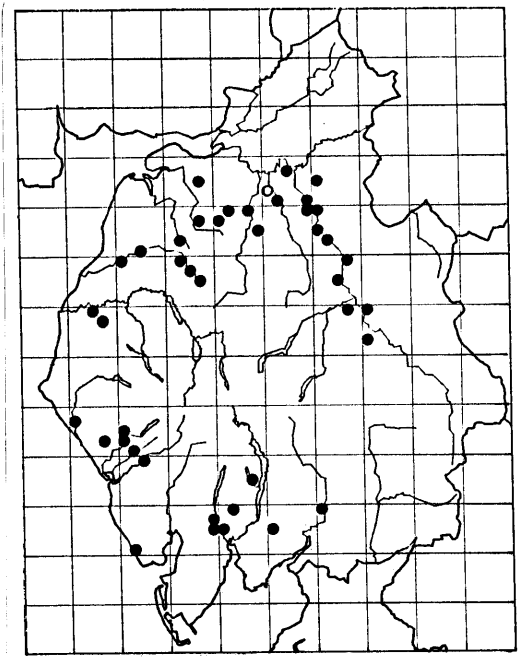
A wide variety of invertebrates can be found sheltering under bridge arches or in crevices and drains. Common groups include slugs and snails, caddis flies, millipedes, woodlice, and harvestmen. A Pygmy Shrew seen in a bridge crevice at Portinscale was presumably hunting these bridge-dwelling invertebrates. Only a small number of invertebrate species were identified and systematically recorded during the Cumbrian survey.

Most notable in terms of rarity is the Giant Lacewing *(Osmylus fulvicephalus)*, which was found resting on the underside of bridge arches at 29 sites (maximum 12 individuals). This has almost doubled the number of records for this species in the county and has extended its known distribution considerably.

Several species of Lepidoptera were recorded but only three occurred at more than one or two sites. The Old Lady moth *(Mormo maura)* shelters in shallow bridge crevices during the daytime and was recorded at 40 sites. This has significantly increased the number of known records for the county because, although it is probably common and widespread, it is not attracted to light traps. The Herald

Giant Lacewing: distribution in Cumbria

Symbol: tetrads. Key: O pre-1980; ● 1980–1995



moth *(Scoliopteryx libatrix)* (26 sites) and the Small Tortoiseshell butterfly (21 sites) both hibernate in bridge crevices, and most other records of the Herald in the county are from other locations where it hibernates, such as caves and mine levels.

The Drone Fly *(Eristalis tenax)* also hibernates in bridge crevices and this species was recorded in 72 bridges. Bridges with large dark cavities or enclosed culverts can provide suitable conditions for small colonies of cave spiders (*Meta* spp.) and a number of bridge sites were found where *M. menardi* or possibly the similar *M. bourneti* were present. (*M. bourneti* has not yet been recorded in Cumbria, but in other parts of Britain it occurs in culverts, pipe conduits, and other man-made sites (Parker, J.R., pers. comm.).) Many species of slug and snail can be found in bridge crevices but the snail *Helix aspersa* is particularly abundant in some drain-holes, occasionally completely filling large crevices.

The bridge flora was not recorded during the Cumbrian survey but many stone bridges were noted as having luxuriant growths of ferns, particularly Maidenhair Spleenwort, Wall Rue and polypody species. Black Spleenwort was recorded on two bridges and on old stone bridges the moss and lichen flora is probably also of great interest. Unfortunately many plants growing on bridges are cleaned off during repairs and re-pointing works. Some plants, notably Ivy and tree seedlings, must be removed because of the damage they cause to the bridge structure, and the removal of Ivy will reduce the number of available nest sites for birds, and probably some hollows suitable for bat roosts.

In addition to their practical use and great architectural interest, the bridges of Cumbria provide an important and interesting habitat for a wide range of our flora and fauna. The Conservation of Bats in Bridges Project has accumulated a great deal of information on the wildlife that uses bridges in Cumbria, and has established good links between bridge managers and conservationists. The County Highways Department has recently demonstrated a positive attitude to conservation, both through the partial funding of the project and through its actions when working on sites of conservation importance, and if other bridge managers can be persuaded to take a similarly enlightened approach the future for the wildlife of bridges will look considerably brighter.

The Conservation of Bats in Bridges Project was funded by Cumbria County Council, English Nature, The Lake District National Park, and The People's Trust for Endangered Species.

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Observations on solitary bees and wasps in Cumbria in 1996

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In contrast to 1995, which was such a good year for studying aculeates, 1996 was a disappointment. The cool dry spring which delayed the development of nectar and pollen flowers, followed by a summer in which the sun rarely seemed to shine for more than an hour at a time, made it difficult to pursue any consistent studies. I did not spend much more time at the colony of the nationally scarce mining bee *Andrena humilis* Imhoff at Helsington Barrows which I described in the March 1996 *Carlisle Naturalist*, but I did find this bee in two new locations. At Latterbarrow – the Cumbria Wildlife Trust's wonderfully flower-rich limestone grassland reserve – I saw males and females at Rough Hawkbit *(Leontodon hispidus)*, and nest-holes in a footpath nearby. I also found females with holes in a footpath in similar habitat at Barker Scar near Cark (SD 37). At all three sites they were nesting in patches of orange-brown loess soil on otherwise stony tracks. Loess is a periglacial wind-blown sandy deposit found on many level surfaces on limestone around Morecambe Bay and it definitely seems to be this bee's preferred nesting medium, just as Rough Hawkbit is its preferred nectaring and pollen source. Interestingly, at both new sites I also found *Lasioglossum fulvicorne* (Kirby) – a very small mining bee associated with calcareous grassland. I found this species at Gait Barrows NNR in 1995 – probably the first record for Lancashire. It has previously been recorded in Cumbria by A.E. Wright who reported it to be common around Grange-over-Sands in the 1940s, but recent British records have all been for Jurassic limestone or chalk further south.

At North Walney NNR on 21 July I watched *Megachile maritima* (Kirby), a large leaf-cutting bee, carrying pieces of leaf to construct its cells – bringing a piece every 10 minutes to its nest-hole in a sand-dune. Numerous males of the mining bee *Colletes fodiens* (Geoffroy) were visiting Ragwort *(Senecio jacobaea)*, while Rosebay Willowherb *(Chamerion angustifolium)* was attracting males of three species of small solitary wasps: *Crossocerus elongatus* (Van der Linden), *C. tarsatus* (Shuckard) and *C. wesmaeli* (V. d. Linden) and the larger *Crabro peltarius* (Shreber). The latter has conspicuous scoop-like flanges on its forelegs which, however, are not used for digging – only the females do that. It has been surmised that they play some part in mating, but no-one seems to have actually observed this. Two spider wasps were very active: the grey-black *Pompilus cinereus* (Fabricius) and, very abundantly, *Episyron rufipes* (L.) which has red legs and white spots on the abdomen. All spider wasps are variable in size but this species is exceptional – ranging from 5.5 mm to 14 mm in length! Apparently this is due to variation in the size of the spider left for the larval wasp by its parent – they only supply one spider per cell. Small spiders give rise to small wasps, but my 14 mm specimen must have been provisioned with something

very large – probably an orb-web spider as this species is known to specialise on web-spinners.

I visited Wan Fell (NY 53) on 5 September with Stephen Hewitt and Geoff Naylor. A colony of the Field Digger Wasp (*Mellinus arvensis* (L.)) was still very active, bringing flies to holes in a sandy Rabbit warren. The mining bee *Colletes succinctus* (L.) was nesting characteristically on the edge of the moor, but also on a sandy strip near the summit. Here I found *Psen equestris* (Fab.), an extremely slender solitary wasp, and an attractive spider identified by Jennifer Newton as *Arctosa perita* (Latreille) which I had also taken as the prey of *Pompilus cinereus* at North Walney. However, the heather seemed to be very uniform over this site and I doubt whether it supports a wide range of aculeates. In the afternoon I went further north to Holmwrangle Sand Pit where an hour was enough to establish that this certainly is an excellent site, which should repay further visits. I found *Pompilus cinereus, Mellinus arvensis* and *Colletes succinctus* as well as the mining bee *Halticus rubicundus* (Christ) and its cleptoparasite *Sphecodes gibbus* (L.) – a shining black bee with a red abdomen, which was numerous on Ragwort. Of particular interest was *Myrmosa atra* Panzer, a tiny cleptoparasitic wasp of the Family *Tiphiidae*. The female which I watched investigating holes of the solitary wasp *Crossocerus pusillus* (Lepeletier & Brulle), seeking to sneak in and lay an egg in a cell, is wingless and closely resembles a small red ant. It is known as far north as Cumbria and is not considered rare but is not often recorded.

For me, however, the most exciting event of the year was the rediscovery of A.E. Wright's location for the mining bee *Melitta haemorrhoidales* (Fab.) where he found it in the 1940s, new to north west England, on the seaward revetment of the railway embankment east of Grange-over-Sands. Wright was a dedicated entomologist who lived in Grange from the 1920s to 1950, during which time he collected studied and recorded in detail the various insects of the area. Although he was well known as a lepidopterist and a dipterist, much less seems to have been known about his interest in Hymenoptera. An article which I wrote about this aspect of his activities was published in the *British Journal of Entomology and Natural History* (Robinson, 1996). The railway embankment was one of his favourite hunting grounds, but the adjacent saltmarsh is now grazed and with it most of the embankment. However, on 20 July I found that about 100 m of the flower-rich habitat survives: an amazing natural rock garden in a south facing suntrap situation with fine clumps of Harebell *(Campanula rotundifolia)* and Perforate St. John's-wort *(Hypericum perforatum)* growing like garden plants. At the Harebell I took the *Melitta*, the first record north of the Mersey since Wright's day, and also the 'carder bee' *Anthidium manicatum* (L.), which is not common so far north, and a large leaf-cutter bee *Megachile willughbiella* (Kirby). On 4 September I made another interesting discovery: males and females of the tiny metallic-green mining bee *Lasioglossum smeathmanellum* (K.). This forms a 'species-pair' with the very similar *L. cupromicans* (Perez) which is the common species in the

north. *L. smeathmanellum* is common in the south and was not thought to extend north of the Mersey, but George Else at the Natural History Museum, London, has confirmed the identification and that this is the northernmost record. It is also the first confirmed for Cumbria because although Wright recorded it from Grange, and may indeed have found it, he did not report *L. cupromicans*, which raises the question as to whether he knew the distinction. I have high hopes that this site may produce some more surprises, as it might be described as one of the northernmost extremities of south of England climate in the north west of England.

Reference

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Bird's-foot Sedge (*Carex ornithopoda* Willd.) in Cumbria

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F. Jeremy Roberts,
Eden Croft, Wetheral Pasture, Carlisle CA4 8HU

General distribution

Bird's-foot Sedge is a *Red Data Book* species, a distinction it shares with only one other Cumbrian sedge – Large Yellow-sedge *(Carex flava)*. However, whereas Large Yellow-sedge is to be found at only one site in Great Britain, Bird's-foot Sedge occurs widely and, at times, abundantly within a limited area, namely the carboniferous limestones in the east and south of Cumbria. It is also found in similar habitat but in lesser numbers in Mid-west and North-west Yorkshire (VCs 64 and 65 respectively) and in Derbyshire (VC 57). Outside these areas it is almost unknown, the only other record – from North-east Yorkshire (VC 62) – depending on a single specimen collected in 1887 (David, 1981). Beyond Great Britain Bird's-foot Sedge has a widespread European distribution stretching as far as Asia Minor and the Urals, being especially widespread and frequent in the Scandinavian mountains, just crossing the Arctic Circle and reaching sea-level both at the northern end of the Gulf of Bothnia and on the island of Öland in the southern Baltic. In central Europe it is also widespread, occurring not so much as a high alpine, preferring hilly and sub-montane environments, always on calcareous soils.

Description

Bird's-foot Sedge is a small low-growing plant whose neat tufts of pale to mid-green leaves can be found throughout the year, most readily in spring and early summer. The compact inflorescence appears in May and June and bears some resemblance, particularly in the early stages, to the foot of a bird, the wiry stalk being the leg, the flower spikes the bird's toes and claws. The colour both in flower and fruit is often described as pale or straw-like. Frequently the inflorescences do not overtop the leaves but lie close to the ground around the plant as if they were too heavy for their stalks. As a result attention is often drawn to the plant not by the flowers but by the distinctive colour of the leaves and by the abundance of small tufts. During July and August the ripe fruits fall away leaving thin pale brown stems which themselves wither and die.

For those wishing to examine Bird's-foot Sedge in the field, the most convenient site is on the east side of the B 6260 in the environs of a small disused quarry (NY 632107). Here the sedge grows within a metre or two of the tarmac.

Habitat

Bird's-foot Sedge thrives in a variety of limestone habitats, almost always in full sun. In general it appears to be intolerant of shade and it tends to give way to scrub encroachment, surviving typically on exposed plateaux and flanks of hills where a more extreme climate has allowed only limited incursion of scrub cover. Here it grows, sometimes in great abundance, in the thin turf between boulders and on calcareous boulder-clay slopes. Limestone pavements, abandoned limestone quarries and the grassy screes at the foot of limestone crags are particularly favoured. Bird's-foot Sedge also grows very distinctively in certain sites well within the original forest zone where calcareous springs generate open areas of hummocky ground on which the sedge occupies the top of hummocks, often with or near other rare plants such as Alpine Bartsia *(Bartsia alpina)* and Hair Sedge *(Carex capillaris)*. Damp slopes of calcareous boulder-clay on the banks of streams and valley sides form another frequent habitat. In Whitbarrow Wood the plant occurs in some quantity along open rides in plantations and here it must be a recent colonist. It appears therefore to have considerable powers of spread, and where interference with the aboriginal forest by man and especially by his browsing and grazing animals has allowed the development of limestone pastures well down into the forest zone, colonisation by Bird's-foot Sedge readily takes place. However, the limitations of the plant to limestones of northern England suggests that other prerequisites – perhaps climatic factors such as rainfall or temperature – have limited the plant's past and present distribution.

Associated species

Most Bird's-foot Sedge sites are exposed with only thin soil and consequently the list of associated species is not extensive. Sheep's Fescue *(Festuca ovina)*, Blue Moor-grass *(Sesleria caerulea)*, Wild Thyme *(Thymus polytrichus)* and Fairy Flax *(Linum catharticum)* together with the fern Green Spleenwort *(Asplenium trichomanes-ramosum)* are the most frequent associates. Other species noted on several occasions include Herb Robert *(Geranium robertianum)*, Small Scabious *(Scabiosa columbaria)*, Glaucous Sedge *(Carex flacca)* and Carnation Sedge *(Carex panicea)*.

Distribution in Cumbria (1980)

A complete survey of Bird's-foot Sedge in Britain was carried out by the late R.W. David in 1980 (David, 1980). The details for Cumbria have been extracted and are listed below:

SD 48 Halecat (C); Askew Green (C); Mill Side, Low Fell (C); Whitbarrow, locally abundant between Howe and Raven's Lodge (D); Brigsteer, four places (A,B,B,C);

SD 49	Helsington Barrows (C); Scout and Underbarrow Scars at frequent intervals (C); Cunswick (A);
SD 57	Curwen Woods (B); Hutton Roof (B);
NY 51	Shap (B);
NY 60	Orton, Broadfell (B); Sunbiggin, scattered over the limestone pavements (B);
NY 61	Crosby Gill, a main colony (C) and many scattered plants; on most of the terraces between Orton Scar and Great Asby Scar (C);
NY 70	Smardale (B); Potts Beck (B); Fell End Clouds, continuation of colony in VC 65 (B);
NY 71	Helbeck (C).

(Where A = 1 to 20 plants; B = 21 to 100 plants; C = 101 to 1000 plants; D = over 1000 plants).

Later developments

NY 54 A most interesting extension to the plant's known range is its occurrence by the River Eden in Coombs Wood near Armathwaite, where Dr R.W.M. Corner found a single plant on riverside sandstone rocks in 1986. Further searching has revealed up to forty plants in a good year, growing in a strip about 40 m long between 1.3 m and 2.6 m above normal river level (Corner & Roberts, 1989). Not only is the low altitude (53 m) unusual, but the acidic sandstone substrate is unique for the plant in Britain, and its relative success not only in establishing itself amongst quite tall vegetation in partial shade, but in developing a vigorous, free-fruiting colony in such a site is extraordinary. Searches of other similar sites by the river in the Eden Gorge have so far failed to reveal any further sites for the plant, but it must be said that the sedge is most inconspicuous at this site, and that other colonies may await discovery.

Although as stated the Permian sandstones are in general acidic, it is clear that the riverside vegetation has a number of more lime-demanding species, including Clustered Bellflower *(Campanula glomerata)*, Northern Bedstraw *(Galium boreale)* and Wild Marjoram *(Origanum vulgare)* growing in a narrow zone close to river level, these being replaced above with typical acid oakwood associates such as Great Woodrush *(Luzula sylvatica)*. The explanation for this curious assembly of calciphile plants is believed to be the regular 'flushing' of the porous rock with the relatively lime-rich water of the Eden, many of whose head-streams arise in, or flow over, the limestones further south.

Survey 1994

As part of the updating of information on this species for a revised *Red Data Book*

(Plants) a large number of the Cumbrian sites was re-surveyed in 1994, with encouraging results. The sites listed by David in 100 km-square NY 35 were visited and the Bird's-foot Sedge re-found in all of them. Population counts were carried out and numbers found to be at least as high as those noted by David in 1980. In some cases there were distinct increases in the number of plants seen while it was also found that colonies appeared to have extended beyond their original centres of population. Small subsidiary sites were also noted and it was felt that the sedge was present over large areas of suitable ground sometimes thinly scattered or patchy, sometimes abundant.

A typical example of the expansion apparent in some colonies is that at the Shap site, in NY 51, where Bird's-foot Sedge was found along several hundred yards of damp calcareous boulder clay close to a beck, its numbers having evidently increased from a maximum of 100 in David's survey (*op. cit.*) to perhaps 600 plants. Similarly, thriving colonies were found on the limestone fells north-east of Sunbiggin, NY 60, with plants numbering 100 or more in each (David's maximum for this area was 100 plants). There are, however, several small sites such as those at Potts Beck where the numbers seemed to have changed little since David recorded them. The populations at all the following sites also appear to have remained more or less constant: Crosby Gill; Broadfell; Orton Scar; Great Asby Scar; Smardale; Fell End Clouds. Additional small colonies were found at Helbeck and at Cunswick in square SD 49.

In conclusion it should be stated that the area covered by the survey is very extensive, and that Bird's-foot Sedge is a small and unobtrusive plant. Whilst the species is obvious enough in its denser colonies, it can also occur scattered thinly over large areas. Discerning the limits of many colonies is thus difficult, and constraints of time have meant that such was rarely possible. Direct comparisons with David's findings should not therefore be given too much weight. Where appropriate, maps have been prepared to aid future monitoring of populations. It is possible that the plant is more widespread and frequent than either this or David's 1980 survey suggest.

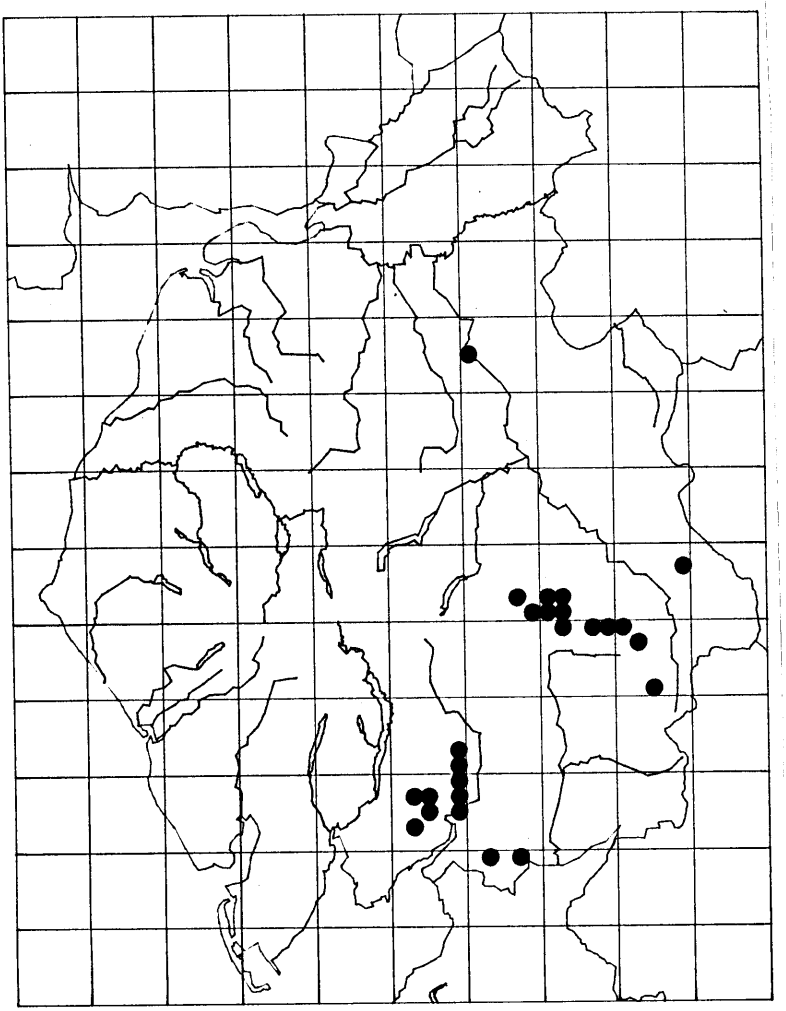
Conservation

The Bird's-foot Sedge has tolerated close sheep grazing in most of its localities and in fact seems to seed itself best in rather thin, stony soils which have developed with sheep grazing. In most places the sheer stoniness of the habitat has thus far prevented the ploughing of upland pastures which has recently and most regrettably appeared in some areas near Sunbiggin. However, destruction of pastures still occurs by fertilisation, and by gross over-stocking (especially overwintering of cattle with feed stations) and this poses a threat to some colonies. Wholesale bulldozing of scarps and pavements for rockery stone, as near Shap and Orton, appears to destroy the soil structure temporarily or permanently and this can lead to the loss of the plant through habitat destruction.

In general, however, most colonies appear to be holding up well; further monitoring in the future will be necessary to see what effects further intensification of farming practice will cause. It may well be that only deliberate restriction of farming intensification – such as by Environmentally Sensitive Areas – will preserve this plant and its habitat in the longer term.

Bird's-foot Sedge: distribution in Cumbria

Symbol: tetrads. Key: ● all records



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Bird's-foot Sedge (natural size) *(Jeremy Roberts)*

Society Announcements (continued)

Honorary Membership awards

Henry Ruddick has been a member of the Society since he joined in 1947. In recognition of his long service and support for the Society, Council has awarded him Honorary Membership. Henry formerly lived at Scaleby, and has made a long-term study of the history and natural history of Scaleby Moss. In the past he wrote wildlife notes for the local press under the name of 'Jock Mallard'. Henry has previously served on Council, and this honorary award is given in gratitude for his long service and contribution to the Society over many years.

Derek Ratcliffe who joined the Society in 1944 is awarded Honorary Membership in recognition of his many services to the Society over the years – not least his support and contributions towards the celebrations of the Society's Centenary through the Centenary Conference and subsequent publication of Cumbrian Wildlife in the Twentieth Century. Derek spent his formative years in Carlisle, developing his interest in natural history under the guidance of Ernest Blezard. He made many exciting and important discoveries during his exploration of the wildlife of Cumbria and Galloway. He joined the Nature Conservancy after University, becoming Chief Scientist in 1974. He retired in 1989. He is the author of many authoritative publications on natural history and wildlife conservation in Britain. It is a pleasure for members of this Society to regard him as one of our own and 'a local lad made good'.

Welcome to new members:

Mr D. Atty, Embleton
Mr C. Auld, Cumwhitton
Dr N.L. Birkett, Grange-over-Sands
Mr P. Burton, Askam-in-Furness
Mr J.I. & Mrs G.M. Coulthard, Crosby-on-Eden
Ms C. Collinson, Heads Nook
Mr & Mrs J.C. Dubberley, Brampton
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Mr D.C. Lush & Miss N. Beale, Carlisle
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Dr P.C. Stride, Heads Nook

The Carlisle Naturalist

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Distribution maps produced by Tullie House

All material for publication should be sent to Stephen Hewitt, Tullie House Museum, Castle St., Carlisle CA3 8TP.

Deadline for receipt of copy for the next issue is **12 September 1997**.

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 – ideally type-written double-spaced on one side of white A4 paper, or submitted on DOS-formatted 3.5 inch computer disc in ASCII format and accompanied by a paper copy. Only species and genera should be underlined. 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. References should be given in full at the end of the article or note.

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.

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Membership application forms are available from the Secretary.

Summer Meetings, 1997

Meetings start from Carlisle College, Victoria Place, Carlisle unless otherwise stated (Leaders may cancel meetings at this rendezvous if they consider circumstances unsuitable).

27th April (Sunday): Borrowdale. Leader Geoff Horne. Depart 9.30 a.m. Meet at Great Wood car-park (NY 271212) at 10.30 a.m.

18th May (Sunday): Caldew Valley. Leader Barry Marrs. Depart 9.30 a.m. Meet at the White Bridge, Dalston (NY 370497) at 10.00 a.m.

7th June (Saturday): Coombs Wood. Leader John Hamer. Depart 1.30 p.m. Meet Coombshead (NY 517444) at 2.00 p.m.

14th June (Saturday): Upper Teesdale. Depart 9.30 a.m. Meet Cow Green Reservoir (NY 810309) at 10.30 a.m.

28th June (Saturday): South Lakes (Joint meeting with British Dragonfly Society) Leader: David Clarke. Depart 9.00 a.m. Meet at N.T. car-park west of Skelwith Bridge (NY 341037) at 10.30 a.m.

12th July (Saturday): Grasses (Workshop and field trip). Leader Jeremy Roberts. Meet at Tullie House at 10.00 a.m., please book in advance with the Museum.

19th July (Saturday) Scaleby Moss. (Joint meeting with British Dragonfly Society) Leader: David Clarke. Depart 1.00 p.m. Numbers limited – book in advance.

15th August (Friday evening): Light trapping for moths. Leader Mike Clementson. Depart 7.30 p.m.

6th September (Saturday): Ladybirds (Workshop and field trip). Leaders David Atty & Stephen Hewitt. Meet at Tullie House at 10.00 a.m., please book in advance with the Museum.

Winter meetings commence **15th October**.