

# The CARLISLE NATURALIST

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(Roy Atkins)

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## **Editorial note**

*The Carlisle Naturalist* is now a registered serial publication. This has brought some minor changes - there is now an ISSN number quoted on the front cover, the page heading text has been revised and scientific names are now followed by the authority name. These alterations are very minor and do not alter the character of the publication. Registration will attract the attention of a wider audience to the activities of the Society and the information it is gathering and publishing. While maintaining the same format as at present it is hoped to attract notes and papers for publication on Cumbrian natural history from various workers in the subject, whether members of the Society or not.

## **Society Announcements**

### **Annual Dinner**

This event has again been booked at the Dalston Hall Hotel where we have enjoyed such good food and drink on the previous two occasions. The date is Thursday 28th March at 7.30 p.m. for 8.00 p.m. and the cost of the meal is £14.95 per head. A booking form is enclosed: please return this to David Clarke at Tullie House **by Monday 11th March**. Please try to attend: it is a relaxed and enjoyable event and a chance to get to know other members better.

### **Wildlife in the City - urban wildlife photographic exhibition.**

In June Tullie House Museum will open a temporary exhibition entitled "Wildlife in the City" - dealing with the rich wildlife heritage of Carlisle city. As part of the exhibition we would like to include photographs of the urban wildlife of Carlisle by members of Carlisle Natural History Society. This will promote both the wildlife of the city and also the Society. We are looking for images of all aspects of the city's wildlife such as wildfowl on the rivers, wildlife gardens, butterflies, mammals and birds in the city, local nature reserves like Kingmoor or Engine Lonning, alien plants and garden escapes, recolonisation of waste ground, amphibian breeding sites, etc.

Please contribute to the show by contacting Stephen Hewitt at the Museum as soon as possible.

### **Peat-free compost for sale**

"Second Nature Organic Compost" is the new recycled compost made by Carlisle City Council from garden waste. 100% organic, Second Nature compost is peat-free, rich in nutrients, and is the ideal soil-improver and conditioner. The compost is available through the Society in 40 litre and 80 litre bags at £2.00 and £3.00 respectively. This initiative is good for the environment, good for your garden, and good for the Society as we get a share of the profits from sales! Contact Stephen Hewitt at Tullie House with your orders.

## Reports on Field Meetings

8th October:

### Kingmoor Nature Reserve (Fungus Foray) Leader - Geoff Naylor

Seven members were joined by an interested passer-by who subsequently joined the Society (*welcome to Dorothy Cowen*).

Fungi were fairly abundant on this occasion as the date coincided roughly with the middle of a late-starting season, due to the exceptionally dry August and early September.

In total 61 species were recorded and many were photographed and shown at a subsequent members' evening. This total is about three-quarters of those of the forays of the previous two years, but they were probably exceptional.

Members who were not too familiar with fungi were intrigued by some of the "English" names - including Beefsteak, Plums-and-Custard, Butter Cap, Amethyst Deceiver and The Blusher (all common species). Less common were the following: *Pholiota squarrosa* (Muller ex Fr.) Kummer, the spectacularly violet *Cortinarius violaceus* (L. ex Fr.) Fr., *Hebeloma sacchariolens* Quel., *Lyophyllum decastes* (Fr. ex Fr.) Sing. and Giant Puffball. Most interesting, however, was the unusual abundance of *Clitocybe odora* (Bull. ex Fr.) Kummer - smelling strongly of aniseed and with a distinctive green colour.

At the end of the walk Dorothy Cowen nipped home to pick up some photographs of fungi which she had taken, and everyone present was interested to see pictures of the morel fungus *Morchella elata* Fr. photographed at Kingmoor Sidings (NY3857) in spring 1995.

Finally the group examined some specimens of fungi which Stephen Hewitt had collected from Penrith Beacon earlier in the day. Surprisingly these included an unusually large example of the deadly Destroying Angel, large enough to kill all those present, and then some!

Geoff Naylor

2 Fell View, Milton, Brampton, Cumbria CA8 1JE

[Fortunately the final act of the meeting wasn't as final as all that and Geoff took the Destroying Angel away to be disposed of safely! - Ed.]

**3rd February: Loch Ken & Galloway coast Leader - Geoff Horne**

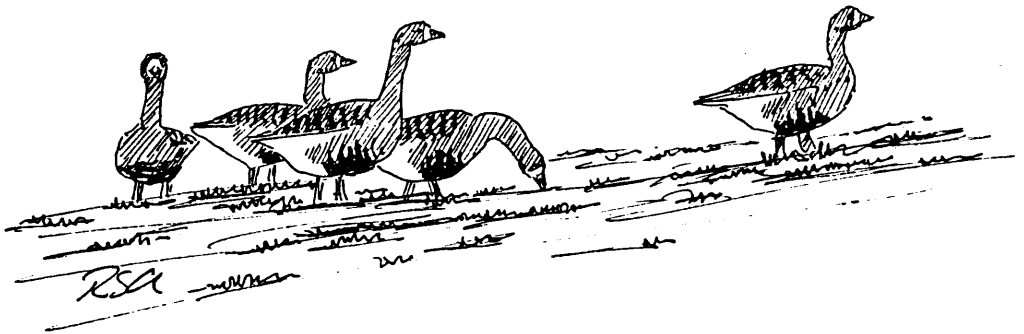
Saturday, 3 February turned out to be an exceptional day for the traditional "wild goose chase". The weather was good with blue skies and excellent visibility.

The first stop was just west of Annan where the party regrouped. Here we watched up to a dozen "mad March" hares chasing one another in the roadside fields. A detour from the usual route took us down to the Solway coast at Newbie where we were able to see Bar-tailed Godwit, Ringed Plover, Dunlin and Knot on the tideline together with the usual Lapwing and Oystercatcher. Out on the sea there were three Great Crested Grebes as well as Goldeneye and a raft of Scaup.

On the way to Caerlaverock the party stopped just west of Cummertrees to look at a large, mixed flock of geese. It was estimated that there were 1000 Pink-foots and 500 Barnacles. At Caerlaverock large flocks of Barnacles were seen from the road, grazing in the fields around the reserve. The usual large parties of Pintail were seen from the car-park near the River Nith, flying up and down the estuary.

The road from Glencaple to Dumfries again produced a flock of about 30 Whooper Swans. It was while we were watching these that a Buzzard flew over giving us wonderful views in the sunlight. It was probably the first of 20 or so Buzzards that we saw during the course of the day.

Although largely frozen, the roadside loch at Auchenreoch still held decent numbers of duck and other waterfowl on the small stretches of open water. Amongst these were Tufted Duck, Pochard, Wigeon, Teal, Goldeneye as well



*White-fronted Geese*

*(Roy Atkins)*

as Goosander, Mute Swan, Greylag Geese and three Snipe. Some of the ducks were very restless and the reason for this became apparent when a female Peregrine came over and attempted to take a duck in the air.

Lunch was eaten at Threave Castle followed by a watch from the hide of good numbers of Pintail, Teal, Wigeon, Goosander and three Little Grebes on the river. Moving on from Threave up the west side of Loch Ken we came across some very large flocks of Greylag Geese together with Pink-footed Geese and the hoped-for Greenland White-fronted Geese. On the loch itself was a large mixed flock of ducks and the oddity of the day - a Black Swan. It was here while we watched the geese that the second Peregrine of the day came over.

Various small birds were seen during the day including Reed Bunting, Tree Sparrow, Yellowhammer and Long-tailed Tit. As well as the large number of Buzzards seen, members had good views of two Sparrowhawks and some 18 Kestrels during the course of the day. The only raptor which we might have expected but failed to see was the Hen Harrier.

The outing finished at Gretna where thousands of Starlings were coming in to the roost at dusk. All-in-all an exceptional day, thoroughly enjoyed by the eight members present.

*Geoff Horne*

*17 Yetlands, Dalston*

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## Notes & records

### **The Haweswater Eagles: Year 28**

The long running saga of the Lake District Golden Eagles has taken another twist in recent weeks. It was assumed that the birds would return to their middle nest for the 1996 breeding season, but the deliberate destruction of that nest between 15 and 18 January has removed that possibility. Unlike in 1989/90, when the same nest was destroyed, I was unable to identify the people responsible, but it has to be assumed that it was again kicked out in preparation for an attempt being made to steal the eggs from the only known alternative eyrie.

On 22 January I watched the male performing flight displays above the nest crags and on 2 February the pair flight-rolled and displayed above the top nest crag. Nest building usually commences at the beginning of February and the favourite site looked fresh with one or two sticks added. It was therefore a great surprise to learn that the eagles had begun to build a new nest the next day, and that on a ledge which had not previously been used. The eagles have regularly built on a number of ledges without completing nests but, in the past, this has only been known after the breeding season and never during the usual nest building time.

The new nest has been regularly added to throughout February in spite of the weather. However, while the favourite nest has been kept free from snow, and even added to on occasion, it now looks almost certain that the eagles will use their new nest this year.

The positioning of the new nest, low down in the valley, coupled with the numbers of visitors to the area and the threat from egg collectors, makes a fourth successive breeding failure seem almost inevitable.

It is very unfortunate that so little direct help can be given to the eagles even though we know this eventuality to be the result of human interference. It is to be hoped that the RSPB can control the disturbance that is sure to occur but this will be a very difficult task if the new nest is used. The eagles will be able to postpone their final nest choice until well into March so they could still lay their eggs in the one most prone to egg collectors. This would probably be the lesser of two evils as it is easier to stop egg thieves than it is general disturbance.

As we all hope to see at least one eaglet in the nest it is even more imperative this year that visitors to Riggindale only try to view the eagles from the valley floor and that no one passes beyond the RSPB hide. If the new nest is used though, it could also afford many people their best-ever views of Golden Eagles, and that without even leaving the valley floor.

David G. Walker

5 Naddlegate, Burnbanks, Penrith

### Cumbria wood ant survey

Wood ants, with their large nest mounds and busy trails, are among the most conspicuous of woodland insects. Cumbria has two species whose ranges overlap in the county. The Red Wood Ant (*Formica rufa* Linnæus) is a southern species reaching the northern edge of its range in the Lake District. Although still common in the very south of the county around Arnside, there is concern that this species has disappeared from many of its former haunts and that its range may be contracting in the north of England. The Northern Wood Ant (*F. lugubris* Zetterstedt) is primarily a Scottish species but extends into the northern Lake District.

Neil Robinson (3 Abbey Drive, Natland, Kendal LA9 7QN - tel: 015395 61078) has undertaken, in conjunction with the Museum and the Society, to collate records and conduct a survey over the next two years. He aims to clarify the distribution and status of wood ants in Cumbria and to publish the results in *The Carlisle Naturalist*.

Neil would welcome any leads that members can give him on where wood ants have been seen in the past. Please send your sightings (site name, grid reference, and date of the most recent sighting, together with your own name and address) to Neil or pass them to me at the Museum for forwarding. Neil and I will be pleased to identify specimens if you provide a few workers - dead or alive!

Don't forget the **Ants Workshop** on Saturday 13 July when Gary Skinner will provide training on finding and studying ants. We plan to visit a Wood Ant site in the afternoon.

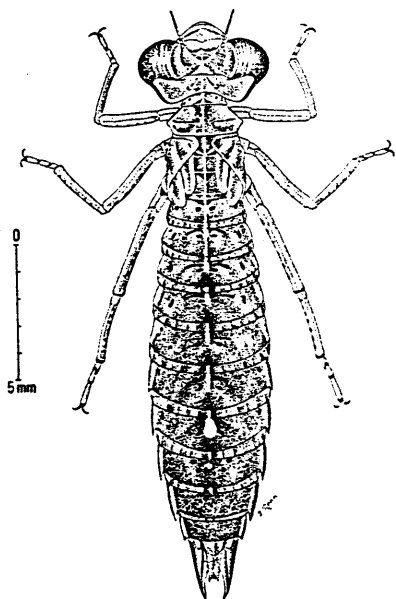
Stephen Hewitt, Tullie House Museum, Carlisle

## Confessions of a dragonfly breeder

After a captive larva had escaped its container, fallen off the windowsill, crawled across the living room floor and emerged from its skin on a chair leg, one might have thought that lessons about the neglect of livestock would have been learned. But no. Three Azure Hawker (*Aeshna caerulea* (Strom)) larvæ I had been keeping last winter provided a further impressive demonstration of the natural resistance of these creatures to being “looked after” by me.

The trio had been carefully installed for the winter in individual water-filled plastic tubs on a utility-room window ledge and left to their own devices. Out of sight, out of mind, of course.

The following April (a mere 27 weeks later), it occurred to me that my charges might benefit from some attention. To my chagrin, two were by then barely covered in about a quarter of an inch of evil-looking greenish water, while the third container was completely dry - and obviously had been so for some while. Hardly surprisingly they were somewhat quiet; not to put too fine a point on it - defunct, I thought.



*Aeshna caerulea* larva

(R.W.J. Read)

For what reason I am not sure, I decided to add fresh water. The result proved that “instant” varieties are not confined to supermarkets! After no more than a minute, each became visibly active - the dry one after the appearance of receiving an electric shock. They were soon responding to live food, the first since October.

The story even boasts a fairy-tale ending. All three continued to grow and prosper. Two have since moved distinctly up-market and are now in a commodious bog-pool with all mod. cons., back home on Speyside! The third continued to enjoy improved services at Faulty Showers and to provide more essential data to the cause of science.



The moral? - I can't think of a suitably pithy one, but I have gained a very healthy respect for the surprising adaptability of these aquatic insects. They can clearly tolerate surprising degrees of desiccation, stagnation and starvation - all of which may become temporary conditions in their natural habitats - but never again *chez moi!*

David Clarke, Burnfoot, Cumwhitton, Carlisle

### The grass-bugs *Teratocoris caricis* Kirkaldy and *T. viridis* Douglas & Scott in Cumbria

While sorting through the F.H. Day collection of British Heteroptera at Tullie House Museum, I noticed seven specimens labelled *Teratocoris saundersi* Douglas & Scott collected from Sunbiggin Tarn (NY60) on the same date (July 1935) as the F.H. Day Sunbiggin specimens in The Natural History Museum, London, identified as *T. elegans* (= *caricis*) by Woodroffe (1967).

On checking the series in Carlisle, I found five specimens to be *T. viridis* (two males and three females) and the other two to be *T. caricis* (male and female). These two species are associated with sedge beds in northern Britain and are regarded as regionally scarce in northern England and nationally scarce respectively. Indeed, the F.H. Day specimens in the British Museum provided the only known record of *T. caricis* south of the Scottish border.

In addition, three other specimens labelled *T. saundersi* in the collection key out to *T. caricis*. All three were collected by F.H. Day at Newton Reigny Moss (NY43) - a male and female on 1 July 1924 and a single female on 25 June 1905. These are apparently the only Cumberland (v.c. 70) records of this species.

Subsequent field work has revealed *T. caricis* still present at Sunbiggin Tarn (NY676077) on 10 July 1995. *T. viridis* was not found although *T. saundersi* was present. In addition I have found populations of *T. caricis* at Fordingdale Bottom, Mardale (NY476158) on 12 July 1995 and *T. viridis* at Boredale Hause (NY409155) and Angle Tarn (NY417141) on 24 July 1995.

### Reference

WOODROFFE, G.E. 1967. The British *Teratocoris* Fieber 1858 (Hem., Miridæ) including *T. elegans* sp. nov., *The Entomologist*, Sept. 1967, pp 229 - 237.

Stephen M. Hewitt, Tullie House Museum, Carlisle

## **Dormouse breeding success in Cumbria**

1995 was a good year for the Dormouse population which I monitor in south-west Cumbria. As the season marked a considerable improvement in breeding success from the two previous years, I thought it would be interesting to review results and look for any obvious factors which might influence that success. The following table refers to 130 boxes in three sites.

Minimum nos. of different adults				Young	
Year	Total	Male	Females	Total	No. young / female
1989	3	1	2	8	4.0
1990	6	3	3	19	6.3
1991	9	5	4	15	3.8
1992	7	4	3	15	5.0
1993	5	4	1	3	3.0
1994	5	4	1	0	0
1995	6	3	3	17	5.7

Because 1995 was such a dry year, and it has been suggested that wet weather might reduce Dormouse foraging and thus presumably productivity, I obtained appropriate rainfall figures for the seven-year period from the National Rivers Authority. 1990 - the most successful breeding year - turned out to be the wettest in the sequence!

Once the figures are set out like this, however, it becomes evident that numbers of young seem most obviously to be a reflection of the numbers of females. This must be a healthy sign for the population in suggesting that generally all the females are breeding. But also interesting is the way the total number of adults in the boxes remains around six. While I wouldn't suggest that the boxes record the whole population, a figure of 2.3 adults/50 boxes does put Cumbria near the bottom of national league tables.

*John Webster, Parkhouse Farm, Gaisgill, Tebay, Cumbria*

## **Keeled Slug *Milax sowerbyi* (Ferrussac) in Carlisle**

On 2 May 1995 I was helping my daughter with some garden jobs at her home in Dalton Avenue, Carlisle (NY3855). I picked up an old roof tile and discovered, amongst a number of other slugs, this distinctive species. I kept it

in damp moss and litter in a jam-jar for over six weeks until I was able to show it to Barry Colville, who confirmed its identity. It was still in perfect health and was released into the garden at Tullie House. This species is predominantly southern in its British distribution although it does occur in Scotland even as far north as Shetland. Although there are several old records for south Cumbria, there is only one other recent sighting in the county and none north of Keswick.

Geoff Naylor

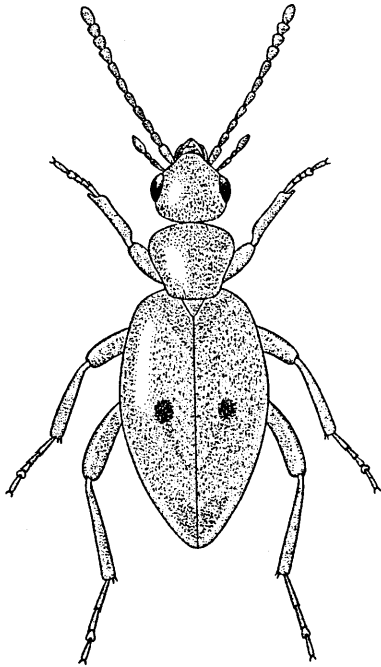
### The beetle *Anthicus bimaculatus* (Illiger) new to Cumbria

On 21 April 1995 one specimen of *Anthicus bimaculatus* was found crawling over open sand on the edge of a dune slack on Sandscale Haws (SD1975). This small ant-like beetle is very local but quite widely distributed in England

and has been recorded from Devon to South Lancashire. It is found mainly in sandy areas and is probably associated with decaying vegetation. It is regarded as a nationally scarce species - occurring in fewer than 30 10km squares in Britain.

This is apparently a new record for Cumbria and the first for vice-county 69 (Westmorland).

I wish to thank Professor John Owen for kindly identifying the specimen for me.



*Anthicus bimaculatus*

(R.W.J. Read)

R.W. John Read  
43 Holly Terrace, Hensingham,  
Whitehaven

### **The weevil *Otiorhynchus nodosus* (Müller) in West Cumbria**

While on a visit to the Ennerdale valley on 1 July 1995 I found one adult specimen of this weevil on the edge of Ennerdale Fell Plantation. The beetle was found under a small, flat stone lying amongst some low heather bushes near the footpath by the River Liza (NY1513).

In Britain *O. nodosus* is regarded as a local species normally restricted to altitudes above 700m. It is interesting to note that this specimen was found at only 130m above sea level.

I have previously found *O. nodosus* on Dent Fell (NY01) and near the summit of Black Combe (SD18). There are specimens of the beetle in the F.H. Day collection at Tullie House Museum from Crossfell (NY63), Cumrew Fell (NY55) and Grisedale Pike (NY12). Day also found it on Scafell (NY20). Recently it has been recorded from the Langdale Pikes (NY20), and from sites on Little Dun Fell and Great Dun Fell (NY73).

*R. W. John Read*

### ***Limax tenellus* Muller - a noteworthy Cumbrian slug**

*Limax tenellus* is very local in Britain, found only in old woodland, in pine-woods in Scotland and mixed deciduous, usually beech or birch, woodland in England where its food, *Russula* fungi, grow. In my experience they go for the rosy- or pink-coloured ones such as *Russula lepida*, *R. rosea* or *R. velenovskyi*. These they eat in a characteristic way starting around the edges and giving the toadstool a frilly look, unlike the common slugs that burrow pits or cut off chunks when they attack fungi.

If you come across these frilly-edged fungi, search under fallen sticks and branches and in the leaf-litter around; or come out at night with a torch and you may find a pretty slug about 3.5cm long, quite a bright translucent patchy yellow in colour; the head and tentacles are blackish and there is a weak keel on top at the tail-end - this is *L. tenellus*. It produces a copious watery slime from its foot and, when irritated, a clear yellow slime from its body. The slugs reach maturity when the russules fruit in September and October. They then lay their eggs and the juveniles survive on the mycelia, mainly underground, until the following autumn when they in their turn reach maturity.

*L. tenellus* was first recorded in what is now Cumbria in 1953 by Dr J.E. Satchell, who found them at Bouth (SD38), Witherslack (SD48) and Newby Bridge (SD38). I found some north of Bouth (SD325859) and west of Newby Bridge (SD3486) in 1993 and near Ambleside (NY30) in 1995.

These slugs are rarely found; I think they often have bad seasons but perhaps nobody looks for them.

*Dr Barry Colville, Poolfoot, Clappersgate, Ambleside, Cumbria*

*[Barry is preparing an atlas of the county's terrestrial and aquatic molluscs and would welcome sightings of this or any other species of slugs and snails - Ed.]*

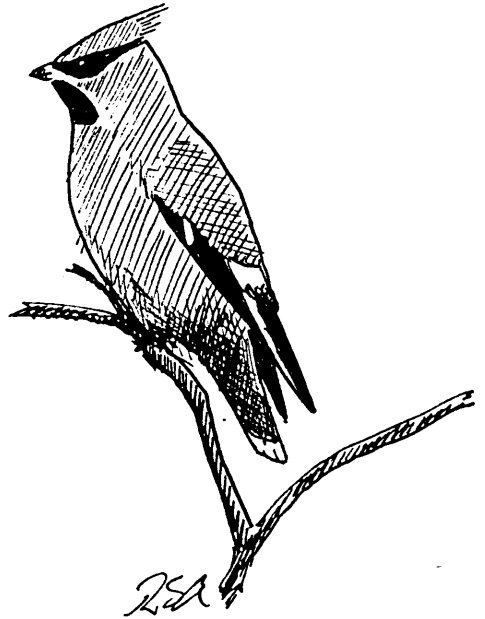
### Avian Winter Visitors

With autumn over, birders look to a few good winter visitors for excitement and this winter has certainly provided them.

Smews are always a bonus to a winter day's birding and a 'redhead' was on the River Eden at Park Broom throughout January, joined by a second in early February. A male was reported in mid-January at Beaumont, again on the river, and a pair has been very obliging on Talkin Tam throughout January and up to the time of writing (14th February).

Bramblings have been in great abundance this winter with small numbers in almost every Chaffinch flock I have checked. There have been some big flocks too with 150 near Kendal, 200 at Arnside, 500 near Ambleside, and at least 800 (some estimate 1000!) at Talkin Tam - an astonishing sight when the whole flock is together.

Most exciting of all, however, has been the influx of Waxwings with reports from all over the county. The first record for the county was of two birds at Moota on 9th



Waxwing

(Roy Atkins)

January; thereafter they turned up all over the place. I have found it difficult to keep up with records, but the larger counts have come from Carlisle (50+ near the Infirmary and 29 near Morrisons supermarket), Penrith (44), Millom (38), Armathwaite (25), Lindale (25), Kendal (16), and Wetheral Pasture (15). Smaller numbers were seen in Keswick, Barrow, Rockcliffe, Whitehaven, Castle Carrock, Anthorn, etc. etc. This must be the biggest influx for many years - a real treat!

*Roy Atkins, 4 Garden Walk, Edmond Castle, Carlisle*

*[Two Waxwing fatalities have been passed to the Museum - both first winter birds. The first, from north Carlisle on 15 January, was a female, and the other, from Wetheral on 28 January, a male - Ed.]*

### **Rabbit viral hæmorrhagic disease**

Frank Mawby has copied me an English Nature note on this subject which I think is worth summarising here.

Rabbit VHD (viral hæmorrhagic disease) is a highly contagious disease. It is specific to Rabbits although there is some concern that hares may also be susceptible but no evidence of cross-infection in the wild. There is no risk to human health.

First identified in China in 1984, the disease appeared in S.W. Europe in 1988; it has been in the U.K. domestic rabbit population since 1992 and first appeared in the wild population in Devon in 1994. Since then it has been identified in nine other counties, including Dumfries. Apparently there have been four reported incidents in domestic rabbits in Cumbria already, although none so far in the wild population.

Rabbit VHD has had a devastating impact on Rabbit populations in other countries. The disease swept through Spain in 18 months, wiping out 90% of the Rabbit population. Six years later, Rabbits are still at only 25% of their 1987 levels. It is as yet unclear whether a similar story will unfold in Britain, but the effects of a crash in the Rabbit population on some sensitive habitats and invertebrates which require Rabbit grazing, as well as on predators such as Buzzards and Polecats which rely heavily on Rabbits as a food source, could be dramatic.

In view of the developing situation it would be very worthwhile monitoring the Rabbit population in this region over the coming years. The easiest way to do this is for individuals regularly to visit and count the Rabbits at a particular convenient site. Select an area near you where you regularly see Rabbits and follow a set route of between 500m and 1km, counting the number of Rabbits you see along the way. Counts should be carried out at dawn and dusk within 48 hours of each other since Rabbit activity patterns can vary seasonally. At least four dawn and dusk counts should be made in a year, although monthly (ideally fortnightly) counts will provide the most valuable data. Send me a plan of your route and the results of your counts and I will collate the information and pass it on to the national Rabbit Research Group. I have more details on monitoring technique for anyone interested.

Rabbit VHD is a notifiable disease and any suspect cases should be notified to MAFF. If you find several Rabbit corpses with no apparent cause of death you should contact your local MAFF office, or if you bring them into the Museum I will see they are passed on.

*Stephen Hewitt*

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### **Letter to the Editor**

#### **Forester and Thrift Clearwing moths in Dumfries & Galloway**

I have just been reading through *The Carlisle Naturalist* for October 1995 (volume 3 number 2, page 31). I too found Thrift Clearwing in 1995. It was at Sandgreen, near Gatehouse on 29 June. I was just about to go out to the Murray Isle to help catch some gulls for ringing. Mind you I *have* been looking for them for a couple of seasons!

I was pleased to hear that you found the Forester a little inland, on the west side of the White Loch. They have in fact been recorded over the last few years between Port o'Warren and Castle Point, by several people. I have seen them both this year and last at both Castle Point and about a mile west of Port o' Warren. Last year my wife Barbara also saw them at Balcary Point.

*Richard Mearns*

*Connanknowe, Kirkton, Dumfries DG1 1SX*

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## ***Gastrophysa viridula* (Degeer) - the Dock Beetle**

Bill Fakes, 4 Lorne Villas, Workington, Cumbria CA14 4BY

For three years I have been studying one of the commonest and most easily recognised insects. All stages except the pupæ are conspicuous in the wild. The adults are easily seen on the leaves; they are yellow-gold-green, but predominantly blue. They have wings, but I have never seen one fly. The pregnant females have conspicuously enlarged abdomens. It is extremely easy to study the life history in captivity, as they subsist entirely on dock leaves (*Rumex* sp.) which stay fresh enough for several days in plastic containers. Females lay large quantities of eggs: several clutches each of about 20. The eggs are yellow, oblong and are stuck by the side, not very securely, almost entirely to the underside of dock leaves. The larvæ are black and at first eat just the under-half of the leaves, staying close together. As they grow they scatter over the leaf and must migrate down to the ground to pupate. The pupæ are also yellow. The entire life cycle takes just over one month.

The adults eat circular holes about 10mm diameter in the dock leaves. The larvæ reduce the leaves to a very characteristic lacy appearance, so that a heavy infestation can often be spotted without leaving one's car. They appear at the beginning of May, soon after the first docks appear and can still be found in November.

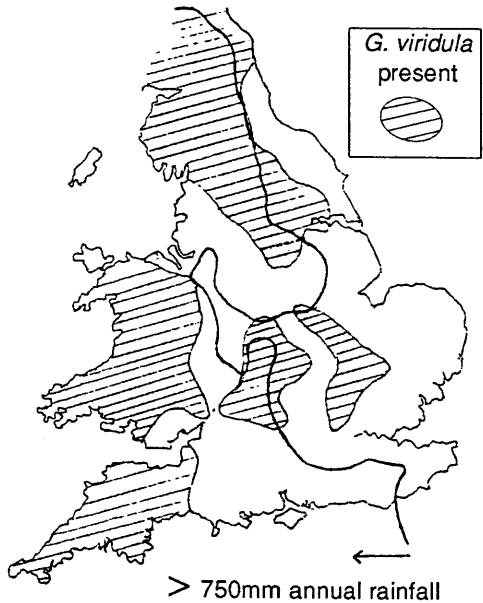
I have found that eggs hatch in approximately seven days. In the summer larvæ fed for about nine days, but in November they fed for 21 days, indoors. They spend two days quiescent and then pupate. The pupal stage lasts 10 to 13 days. Adults first lay eggs after seven days, and live for about another two weeks, laying eggs. Thus the beetle could go through about six generations every year. I do not know in what stage they over-winter.

My attention was originally attracted because although very common all over Cumbria, they are absent from large areas of Northumbria. The distribution map (courtesy Dr M.L. Cox, International Institute of Entomology) shows that *G. viridula* is absent from most of the east of Britain, especially from the area south of the River Thames, and the West Midlands. This distribution approximates very crudely to annual rainfall. I have made a start in confirming the accuracy of the distribution map. As might have been expected I have found the beetle in several places where it has not previously been recorded and these have so far consolidated and expanded the areas where it is already known to occur. In



particular I have found it along the road from Carlisle to Haydon Bridge, but only once found it further east towards Newcastle. The correlation between the distribution of the beetle and areas of high rainfall is not close enough for rainfall to be a good explanation of its distribution. For example there is an isolated pocket in arid Cambridgeshire. Docks are often abundant by the sides of rivers where I have often found *G. viridula*: is this because the beetle prefers the damper conditions or simply that there is an abundance of its foodplant in these situations? Much work remains to be done on its distribution and I am particularly keen to investigate its apparent absence from the West Midlands.

Rainfall and *Gastrophysa viridula* distribution



*G. viridula* is preyed upon by the larvæ of a hoverfly, *Parasyrphus*. My researches in this direction are at an early stage. On 16 June 1995 in Workington, I found a *G. viridula* egg cluster containing two much paler eggs of a different size. These hatched highly mobile legless larvæ, which proceeded to eat the beetle eggs and emergent larvæ. Unfortunately I was unable to rear them, so must remain uncertain that they were *Parasyrphus*. Better luck next year!

I hope this article illustrates the interest to be gained from studying a very common insect. I would like to recommend it also as a potential subject for teaching children about insect life-cycles.

*[The hoverfly **Parasyrphus nigratarsis** (Zetterstedt) is known to prey as a larva on the eggs and larvæ of leaf beetles. Classified as nationally endangered this rare fly was until recently known only from a few records in the Scottish Highlands. It has now been discovered in Wales and Yorkshire. If confirmed from West Cumbria this will be a very interesting discovery - Ed.]*

## **The White-faced Dragonfly management project at Scaleby Moss SSSI**

*Gareth Dalglish, Conservation Officer, English Nature, Blackwell, Bowness on Windermere, Cumbria LA23 3JR*

Scaleby Moss is the 70 hectare remnant of a raised mire, highly modified by agricultural reclamation, drainage and peat cutting for domestic fuel. It supports a small area of bog vegetation surrounded by heathland and woodland on peat. Important invertebrate communities are associated with these habitats and with a series of deep triangular peat cuttings which have become water-filled to form acid bog pools.

Disturbed mires such as Scaleby are always prone to an accelerated rate of seral succession. In this case vegetation growth in the pools and invasion of the surrounding bog and heath by scrub (birch and pine) was leading to the decline of conditions suitable to the nationally scarce White-faced Dragonfly (*Leucorrhinia dubia* (Vander Linden)), the water beetles *Acilius canaliculatus* (Nicolai) and *Ilybius guttiger* (Gyllenhal), and a number of other scarce or local plants and invertebrates. These species have various requirements, including a mixture of open water and *Sphagnum* rafts in the pools, adjacent bog vegetation and sheltered but open, sunny, conditions.

Following a visit to the site with David Clarke of Carlisle Museum we decided to carry out a programme of scrub control and excavation of new pools. In addition we cleared a limited amount of *Sphagnum* from some of the existing pools and transferred it into the new pools. This was to improve conditions for the invertebrates in their existing locations by creating more open water and to aid their colonisation of the new pools.

The pool excavation and clearance had to satisfy many conditions. The work had to be carried out with minimal damage to the existing bog habitats of greatest value, the new pools had to be located in sufficiently wet peat in order to maintain suitable water levels, and they had to be in close proximity to the existing pools to maximise the chances of colonisation. The pools were designed to mimic the old peat cuttings in size and shape. It was not possible, given the timescale and resources available, to remove the excavated peat from the site, as would have been done when the original peat cuttings were created. The soil was therefore levelled on site, avoiding the most important areas of bog vegetation. All this had to be done in difficult and dangerous

conditions where there is the risk of losing machinery (and driver!) in the pools or the deep peat.

Scrub was removed from around the margins of the most important pools and from the best areas of adjacent bog vegetation. Cut material was stacked, where possible, away from the important habitats to minimise the effects of nutrient enrichment and smothering of vegetation. It was not practical or safe to burn the material given the dangers of burning on such a site and the resource constraints of the project.

Local contractors with specialist machinery and appropriate expertise were appointed to carry out the work. The East Cumbria Countryside Project (ECCP) carried out the scrub control and Ken Hope Plant Hire Ltd. of Rockcliffe excavated the pools. The British Trust for Conservation Volunteers (BTCV) from Carlisle spent a day stacking cut scrub. Some of the young pines cut were suitable for use as Christmas trees so volunteers from Carlisle City Council collected them for distribution to deserving charity and community projects in Carlisle.

The work was carried out in December 1993. ECCP spent 14 man-days on clearing about 2 ha of scrub. Glyphosate with a marker dye was applied to the cut stumps of birch to prevent regrowth. Ken Hope Plant Hire Ltd. carried out 40 hours work with a Mitsubishi MS 040 excavator equipped with 3ft-wide wooden bog tracks and in that time excavated six new pools. The pools are approximately 8 x 5 metres in area and 1.3 to 2 metres deep. The sides are vertical except the top 0.75m which are battered to about 15 degrees from the vertical. Vegetation (about 5 excavator bucketfuls from each pool) was taken from existing pools and placed in adjacent new pools.

The work was carried out in one of the wettest winters in recent years! Credit is due to everyone who worked in very difficult conditions. Thanks also go to various landowners for their interest and co-operation. Readers should note that there is no public access to the land. Special arrangements have been made to allow access by EN staff and David Clarke to monitor the dragonfly population, and the co-operation of landowners in this respect would be threatened by trespassers.

#### **A post-script by David Clarke:**

The six new pools created by English Nature are a timely move to safeguard this population of the White-faced Dragonfly - which now has only seven

English sites. In the very hot dry summer of 1995 the pools all held water even though levels dropped by about 1 metre. Thankfully the fire which swept across a small area of the moss in June stopped just short of the important area of pools.

When I visited on 16 August (the end of the species flight season), the pools looked in fine condition and I was pleased to see at least two male White-faced Dragonflies investigating them. Other species of dragonfly were also taking up residence.

The aquatic larvæ of this species take at least two years to develop. The work by English Nature may well have transferred some larvæ from the existing pools. This, combined with natural colonisation, means that emergence of adult insects from the new pools could thus occur annually from now on. The further development of *Sphagnum* rafts, and fringing growths of heather and cotton grass, will improve the attractiveness of the pools to this species.

It should prove quite easy to establish how productive the new pools are by collecting cast skins (exuviae) which will be found on the vegetation close to the water. Monitoring work will start in the coming season. I would like to hear from anyone interested in helping with monitoring, but must reiterate Gareth's remark about respecting the private access: please contact Stephen Hewitt or myself.

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## **A colony of the mining bee *Andrena humilis* Imhoff at Helsington Barrows, near Kendal**

*Neil A. Robinson, 3 Abbey Drive, Natland, Kendal, Cumbria, LA9 7QN*

On 11 June 1994 I took the Kendal Wildlife Watch Group to the part of Helsington Barrows owned by the National Trust, to be "Nature Detectives". One of the first things they found was a group of holes made by solitary bees in the middle of the path about 40m from the entrance gate near the road to Helsington Church (SD487894). Some rather lethargic bees were emerging which I identified as *Andrena humilis*, confirmed by Carl Clee, Liverpool Museum. This species is frequent, but very local, throughout much of southern England and south Wales as far north as the Isle of Man, South Yorkshire and Cumbria (Else, in prep.). However, it is classed as nationally scarce (Notable B) as it is only known from about 65 post-1970 localities and is believed to have declined nationally during this century (Falk, 1991). Subsequently I learned that Simon Hayhow had taken it at Yealand Hall Allotment, Lancashire, in 1993 (pers. comm.) and I took a female in the Lune Valley near Hornby, Lancashire, on 15 June 1995. This suggests that it is quite widespread in the north-west of England, though evidently very local, but it seems to be at its northern limit in Cumbria.

Following my retirement from English Nature in May 1995 I have been able to spend more time watching and photographing the Helsington Barrows colony, which is situated in the middle of the hard-trodden and much used four metre-wide public footpath leading across the National Trust allotment to Scout Scar, at an altitude of 140m on the exposed top of a Carboniferous limestone scar. The vegetation of the allotment is mainly rather rank limestone grassland dominated by Blue Moor-grass (*Sesleria caerulea*), but the colony is situated on a patch of clay soil whose neutral/acid tendency is indicated by the presence of Heather (*Calluna vulgaris*), Common Bent (*Agrostis capillaris*) and Mat Grass (*Nardus stricta*). The colony consists of approximately 100 holes in an area of about 20 m<sup>2</sup>. Each hole is surrounded by a mini-volcano of excavated soil, the size of which suggests that there must be a considerable number of cells below ground. In mining bees these are usually excavated in groups on side-branches of the main shaft and provisioned with a paste of pollen and nectar. The holes are dug by individual females, but on one occasion I saw two females apparently using the same hole. The females are about 11mm long, considerably smaller than a hive bee,

with a rather shiny black abdomen tipped with gingery hairs. The pollen-carrying "scopa" of hairs on the hind legs are also distinctly gingery, hence a superseded but, I think, more appropriate name of *A. fulvescens*. However, when returning to their holes covered in bright golden pollen their appearance is altogether more colourful. The males are smaller and have a yellow face.

Pollen-bearing females fly slowly towards their holes but descend immediately on alighting - which makes photography very difficult! About 20 minutes later they emerge minus pollen, more cautiously, making several hovering orientation sweeps over the hole before flying off. This bee is reported to have a strong preference for yellow-flowered *Asteraceæ* (*Compositæ*): they have been reported visiting Mouse-ear Hawkweed (*Pilosella* sp.), Hawkweed Ox-tongue (*Picris hieracioides*), hawksbeard (*Crepis* sp.) and dandelion (*Taraxacum* sp.) (Falk, 1991). The pollen source for this colony proved not to be the National Trust allotment (which has only scattered *Pilosella* and *Taraxacum* species), but a nearby herb-rich roadside verge with abundant Rough Hawkbit (*Leontodon hispidus*). The females were watched crawling around the centres of the Hawkbit flowers, filling the hairs on the hind legs and sides of the thorax with bright golden-yellow pollen. I was unable to see whether they were also collecting nectar but as their faces were pushed down into the flowers it seems likely that they were. Carl Clee watched bees from a colony near Nefyn, Gwynedd, North Wales (also in a hard-trodden path) collecting pollen from this species in June 1995 (pers. comm.) but apparently the use of *L. hispidus* as a pollen source by *A. humilis* has not previously been published. The females were highly active in mornings (only if the sun was shining) but all above-ground activity ceased by noon, or as early as 11.00 a.m. on very sunny days. The Hawkbit flowers were still open at this time but closed by 2.00 p.m.. Many of the holes were now being closed by soil pushed up from below, presumably by the excavation of new cells for the next morning's work. This daily synchronisation with the morning opening of *Asteraceæ* is described by Falk, 1991.

*Andrena humilis* is single-brooded, with a flight period from mid-May to late June, occasionally mid-July (Else, in prep.). On 24 May 1995 about 40 holes were already open, with males patrolling and mating with females which were working on the holes but not carrying pollen. Pollen-gathering was at a peak in June, and as late as 16 July about 50 holes were still partially open with the bees apparently struggling to re-open them after heavy rain, but none were carrying pollen and I saw only one at the Hawkbit.

The colony also contains a few smaller holes of the very common mining bee *Andrena chrysoceles* (Kirby) and a lively population of black-and-red spider wasps. At any given time in June and July two or three spider wasps can be seen sprinting about the colony in their typically frenetic fashion, dragging paralysed spiders to their doom, parking them while digging a shallow burrow into which the spider is dragged to have an egg laid upon it, and sometimes pausing to refuel with nectar at flowers of Tormentil (*Potentilla erecta*). Unfortunately these wasps can only be identified as mounted specimens so one cannot be certain what one is watching at the time, but *Priocnemis fennica* Haupt was identified with its prey *Pardosa pullata* (Clerk) in 1994 and *Priocnemis schioedtei* Haupt in 1995. As *P. fennica* has only recently been discriminated in the British fauna (Day, 1979) this is probably a new record for Cumbria. It has been described as "possibly a species with an affinity for watersides" (Day, 1988) but this does not apply to the Helsington location. *P. schioedtei* is known from Cumbria but is classed as nationally scarce: Notable B (Falk, 1991). In the south of England it is generally a species of woodland rides and glades (Day, 1988), but in Scotland it is known from more open sandy places (Falk, 1991) which accords better with the Helsington site. Also present are small numbers of the all-black spider wasp *Anoplius nigerrimus* (Scopoli) which has been taken with its prey *Trochosa terricola* Thorell. The association of the spider wasps with the *A. humilis* colony seems to lie in the loose soil which the bees eject, in which I have watched one entombing a spider.

I have not seen *Nomada pleurosticta* Herrich-Schæffer which is the specific cleptoparasite of *A. humilis*, but I have taken *N. flavoguttata* (Kirby), a common species not known to be associated with any of the bees as yet identified in the colony. I also found a female of the tiny Scoliid wasp *Tiphia minuta* Van der Linden. It is nationally scarce (Falk, 1991) and although it has been recorded as far north as Ayr (Richards, 1980), this is apparently a first record for Cumbria (G.R. Else, The Natural History Museum, London, pers. comm.). The biology of this uncommon and mysterious insect is not known, but the larger *T. femorata* Fabricius attacks scarabæid beetle larvæ (Richards, 1980).

Examination of the remainder of the path around the N.T. allotment showed that there were a few other groups of holes, but only where there was deeper clay soil as at the main colony, the limestone soil otherwise being clearly too shallow to accommodate the burrows. I am sure *A. humilis* must occur

elsewhere in Cumbria and would be interested to see how far north it extends - any suggestions of possible locations would be welcome. The essential ingredients seem to be:

- a) hard trodden paths,
- b) with *Leontodon hispidus* nearby and
- c) observation in mornings!

The dependence of the colony, and hence its associated species, upon the adjacent species-rich roadside bank is yet another demonstration of the importance of roadside verges for wildlife conservation.

I am grateful to the National Trust for permission to collect on their properties, to Carl Clee for confirming my identification of aculeates, to Dr Jennifer Newton who identified the spiders and to two of my daughters who spotted the colony in the first place.

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## Snails of the genus *Oxychilus* in Cumbria

Dr Barry Colville, Pool Foot, Clappersgate, Ambleside, Cumbria LA22 9NE

*Oxychilus* is a genus of snails in the family Zonitidæ which have thin, glossy, yellow-brown, discoidal shells with a rounded periphery and delicate, simple, unthickened and unreflected mouths. There are four species in the genus in Britain. Their sizes vary from 5mm to 15mm in diameter. Two are common and two are rather rare in Cumbria. They are difficult to distinguish from one another, especially the juveniles and old dead shells, but the size of mature shells and the colour of the animals are characteristic.

Shells of *O. cellarius* (Muller) are 10mm or more in diameter, pale in colour and flatter than the other species. The animal is a pale variable blue-grey colour. They are common in roadside verges and waste places. There is a woodland form of this species with a darker and less flattened shell.

*O. alliarius* (Miller) shells are 6mm or less in diameter and are darker in colour. The animal is a dark blue-grey and when irritated it smells strongly of garlic. They are widespread in a variety of habitats including acid woodland and leaf-litter on old walls.

Shells of the rarer *O. helveticus* (Blum) are 7mm or more in diameter and are like large *O. alliarius* with a richer colour and with slightly more raised spires. The body is bluish-grey but the mantle is jet black and forms a conspicuous ring around the mouth of the shell. It lives in roadside verges, disturbed land and in moss in woodland. This species is at the north-western edge of its range in Cumbria, although there is the odd record from the west of Scotland. I first found it in 1992 on the southern border of Cumbria at Hale (SD5077) and last year I found one at Witherslack (SD48) and a few near Muncaster Castle (SD19).

There is some confusion about the history of *O. helveticus* in Britain. It had been regarded as a variety of *O. alliarius* when, in 1870, Thomas Rogers found some in Cheshire and sent them with observations on their peculiarities to Dr J. Gwyn Jeffreys, at that time our foremost authority, who identified them as *Zonites glaber* and published his opinion with a note that in 1846 he had found them at Grasmere (NY30). Miss Jane Donald found some in 1882 at Wetheral (NY45); she sent some to Rogers who confirmed their identity. S.C. Cockerell recorded them in 1887 from Coniston (SD39). In 1881 Dr Blum published his paper on *Hyalina helvetica* from Switzerland and

recognised British shells as being identical with his species. In 1903 B.B. Woodward described British specimens under the name of *Vitrea rogersi* but it was proved, in due course, on the anatomy of the animal, to be the same as the Swiss species: see John W. Taylor's monograph, 1907. You will have noticed the use of different generic names over this period!

Capt W.J. Farrer found some at Bassenthwaite in 1901, verified by J.W. Taylor in 1907. The species does not seem to have been recorded again in the county until 1983 when Dr Keith Alexander found it at Seatoller (NY2413). Perhaps *O. helveticus* has been in Cumbria for some time, just overlooked, but as the climate warms up we can expect it to extend its range as it is dispersed by man. Look out for it in disturbed areas.

Shells of *O. draparnaudi* (Beck) are the largest of the genus, growing up to 15mm in diameter. Their body colour is a striking dark, cobalt-blue. They are found in gardens, waste places and have a predilection for coastal areas. All Zonitidæ tend to be carnivorous but this species is particularly so, eating other molluscs, worms, etc., especially if they are injured. *O. draparnaudi* was first found in Cumbria by J. Wilfred Jackson in 1903 at Grange-over-Sands. There have been sporadic records since from about ten 10km squares. Recently I have found them at High Sellafeld (NY0103) and Bowness-on-Windermere (SD49) and John Read has found it at Whitehaven (NX9816). This is another snail spread by the agency of man, so look in your gardens under the *Aubrieta* and go out with a torch in warm, wet conditions after dark.

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A catalogue of the non-marine Mollusca collections at Tullie House Museum has recently been produced and is available free, on request, from Stephen Hewitt.

### **Additions to the Library**

Council has decided that it would be appropriate to honour the memory of some recently deceased members of the Society by acquiring suitable books for the Society's library in their memory.

Accordingly the Society will acquire the following books:-

*The Flora of Northumberland* in memory of Eileen Rhone

*Birdlife of Mountain and Upland* in memory of Ray Laidler

*Mediterranean Wild Flowers* in memory of David Bailey

### **Publication exchange**

Council has agreed to an exchange of publications with the following organisations:

The Northern Naturalists' Union who publish *The Vasculum*.

The Highland Biological Recording Group who publish a newsletter annually.

Copies of these publications will be held in the Society's library at Tullie House.

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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 - 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 cannot 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 on request. 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.

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

**Deadline** for receipt of copy to be included in the next issue is **10 September 1996**.

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## **Carlisle Natural History Society Officers**

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Membership application forms are available from The Secretary, Carlisle Natural History Society, c/o Tullie House Museum, Castle St., Carlisle CA3 8TP.

## **Field Meetings & Workshops, Summer 1996**

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

21st April (Sunday): Borrowdale. Leader Geoff Horne. Depart 9.30 a.m. Meet at Great Wood car park (NY271212) at 10.30 a.m.

27th April (Saturday): Aquatic Invertebrates (Workshop and field trip). Leaders Jane and Roy Atkins. Meet at Tullie House at 10.00 a.m.. Please book in advance with the Museum.

19th May (Sunday): Caldew Valley. Leader Barry Marrs. Depart 9.30 a.m. Meet at the White Bridge, Dalston (NY370497) at 10.00 a.m.

2nd June (Sunday): Sandscale Haws. Leader Peter Burton. Depart 9.00 a.m. Meet Roanhead (SD200756) at 10.30 a.m.

23rd June (Sunday): St. Bees Head. Leader Roy Atkins. Depart 9.30 a.m. Meet St. Bees car park (NX960118) at 10.30 a.m.

13th July (Saturday): Ants (Workshop and field trip). Leader Dr Gary Skinner. Meet at Tullie House at 10.00 a.m.. Please book in advance with the Museum.

19th July (Friday evening) Naddle (light-trapping for moths). Leader Mike Clementson. Depart 9.00 p.m. Meet (NY509159) at 10.00 p.m.

11th August (Sunday): Sowerby Wood. Leader Barry Marrs. Depart 12.30 p.m. Meet (NY369527) at 12.45 p.m.

7th September (Saturday): Minerals (Workshop and field trip). Leader Tony Rigby. Meet at Tullie House at 10.00 a.m.. Please book in advance with the Museum.