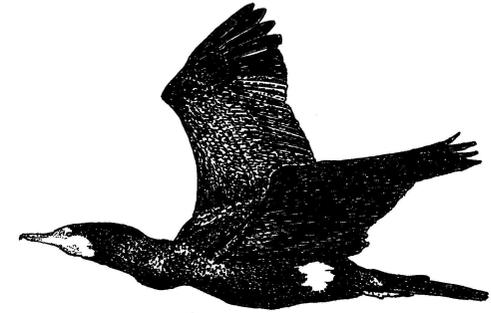

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Cormorant

(David Clarke)

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From the Editor

The next edition of this publication (Spring 2013) will be the first under a new name, and one that better reflects its status as a countywide journal of natural history. There will be some improvements in format, including use of colour on the cover. Members may be assured that whatever the name, the 'heritage' of the twenty issues of which this is the last under the name *The Carlisle Naturalist* will continue to be acknowledged as part of the series. Under the new banner we will continue to develop progressively, improving standards wherever possible.

New article contributors are a welcome sign of things to come and are helping us to develop the breadth of subject matter as well as coverage of different areas of the county.

The current issue follows a spring and summer of almost unprecedented high rainfall and lack of sunshine. This led to far lower than usual numbers of invertebrates in particular, and curtailed their seasons. The impact on wildlife in 2013 and beyond is now a concern – particularly if that season continues with similar trends.

David Clarke

Society News

As will be already known to many members, the end of the summer season brought the unexpected death of our Recorder of many years, Geoff Naylor – an appreciation of him will be found in these pages (p. 49), and we plan to commemorate his contribution to the Society and its aims in various ways in the future.

On a more positive note, the Society in partnership with Tullie House Museum and Cumbria Biodiversity Data Centre has been successful in gaining a grant award of £3000 from the Natural History Museum's OPAL (Open Air Laboratory) Project. This is for various work towards giving more access to resources for the study of Cumbrian natural history through a natural history resource centre at Tullie House. Further details will be announced in the coming issue.

Through generous donations by members to the Society's library, we now have some duplicate runs of the journal *British Birds*. These duplicates are available free to any members who would like them. Please contact the Secretary for further information.

Museum/CBDC News

We are pleased to welcome Gary Hedges as the new Biodiversity Recording Officer, joining Teresa and Moustafa at CBDC. This brings CBDC up to the complement of three staff envisaged in the Business Plan for the creation of the data centre, produced in 2008. Gary's role will be to engage with local naturalists and recorders to encourage and support more recording of wildlife in the county. He will also liaise with users of the data to ensure best possible use is made of the information disseminated through CBDC.

The Museum is working with the Solway Wetlands Partnership to deliver a temporary exhibition on the Solway wetlands, which will then tour to other venues in north Cumbria. The exhibition will interpret and celebrate the unique landscape of the south Solway, explore the rich human history of the area and illustrate the ways in which the natural landscape and wildlife have both influenced human activity and in turn been moulded by that activity.

With the death of our Recorder Geoff Naylor shortly before production, this section has been compiled quickly and without his help. On this occasion only it has been restricted to bird records: fuller treatment of species news will resume in the next issue. These notes are compiled from members' records and messages to 'BirdingCumbria' from March to October 2012.

The remarkable 2011/12 winter for geese continued, with 2 Eurasian Whitefronts with 300 Pink-footed Geese east of Walby Farm on 2 March (CA), and 20 Whitefronts (apparently of both Greenland and Eurasian races) with 2000+ Pinkfeet in fields near Lessonhall on 13 March (MP). On 15 March a Snow Goose was at Raby Cotes with 1000 Pinkfeet on 15 March (NF), and at Whitrigg at least 15 European Whitefronted Geese were with 2000 Pinkfeet (NF). Barnacle Geese reached 13,000 on Rockcliffe Marsh on 6 April, and still 10,000 on 16 April (RJ).

Early migrant waders at a 'new' site, a flash near Walby, Crosby-on-Eden, were a Reeve and 3 Black-tailed Godwits on 16 March (RJ). An early Whimbrel was at Bowness Railings on 31 March (MP); 28 April was a more typical date for this 'May Bird': 5 resting at Watchtree before flying off northeast (ES). 2 Ruffs moulting to breeding plumage were at Campfield on 27 April (RJ). The steady expansion of the Avocet population in northern England (now nesting on both coasts) no doubt explains an extraordinary record of 2 flying up the river Eden at Rockcliffe on 13 April (NF).

Other spring passage waders included a Spotted Redshank and 2 Ruffs at Campfield on 14 April (MP), and 12 Grey Plovers at Bowness-on-Solway on 16 April (RJ). 220+ Golden Plovers of the northern race *altifrons* were on fields north of Gilsland on 16 April, some already in breeding plumage (JR). Other passage migrants included 3 White Wagtails at Campfield on 16 April (BJ) and 2 by the Esk at Longtown on 19th (MP). That rare and beautiful duck the Garganey was at North Plain RSPB on 30 March, and also Great White Egret, Ruff and 7 Black-tailed Godwits (NF).

The first passerine spring migrants were appearing by mid-March. A Chiffchaff was at Bowness Gravel Pits CWT reserve on 18 March (ES), and Chiffchaffs were widespread by 25 March around Binsey (MP). A male Wheatear was at Forest Head on 22 March (CH), and a walk from Newbiggin to Old Water and on to Gairs and Howgill (Geltsdale) on 27 March produced 4 Ring Ouzels (one in song), 4 Wheatears, and 4 Stonechats (CH). Willow Warbler had returned to Siddick Pond by 28 March (DH), and to Wedholme Flow by 31 March, when Blackcaps were singing at Finglandrigg (FM).

April arrivals were a Grasshopper Warbler 'reeling' at Campfield on 18th (MP), and a Lesser Whitethroat at Herdhill Viaduct on 22nd (NF). Tree Pipit and Redstart were noted from 25th (Bassenthwaite, CA); Wood Warbler (Gelt Woods, per SW) and Swift (Warwick-on-Eden, RS; Crosscannonby, JM) from 26th; Pied Flycatcher (Gelt Woods, CA), Common Whitethroat (Finglandrigg, CA) and Sedge Warbler from 27th (Watchtree, ES), and Cuckoo from 28th (Watchtree, ES; Geltsdale, JM). 4 or 5 Ring Ouzels in upper

Geltsdale on 28th were thought to be continental passage migrants by JM.

May arrivals were of Whinchat in Geltsdale on 1st (SW) and Garden Warbler at Castle Carrock on 4th (JM).

Ospreys were moving north: one over the Solway on 28 April (CA) and another in the Eden valley at Wetheral on 29 April (JR). The fairly reliable site on the River Esk above Longtown held 4 first-summer Little Gulls on 27 May (CA).

A Red Kite (untagged) was at Watchtree on 16 June 2012 (the day before the Bioblitz event there – see this issue), feeding on a recently-cut silage field, and one flew over How Mill on 26th (JM).

The migration-watchers on the Solway were in place on 16 April to see 60+ Kittiwakes moving east past Bowness (RJ), and there were 2 adult Little Gulls 33 Red-throated Divers, 34 Kittiwakes, 2 Fulmars, 6 Gannets the following day (CH).

The main focus – the migration of skuas heading from the Irish Sea across country to the North Sea – was first reported on 27 April from Bowness, with no less than three species: a Pomarine Skua (with 70 Kittiwakes), and singles of Great and Arctic Skua heading east high (RJ, RS). A strange record was of an Arctic Skua heading west over the Pennines at Great Dun Fell on 29 May (SW). A migrant Short-eared Owl was seen heading northeast at Bowness on 27 April (RJ). Another coastal sighting was of one at Mawbray on the unusual date of 14 July (MP).

The breeding season started early for at least one species: Crossbills were feeding two fledglings near Gowk Bank on 2 March (CA). There were many flocks of up to 40 of this species in the spruce forests on the upper River Irthing at Churnsike Bridge on 16 April (JR), and other sightings more widely through the summer.

After a very dry spring (with drought declared in some areas of England), the weather, once broken, remained broken, and there was atrociously wet and cool weather for the remainder of the summer. As an inevitable consequence, 2012 was a poor breeding season for many species. Heavy rain for three days around 22–24 June must have destroyed huge numbers of young birds. SW reported that of 44 Whinchat territories checked, no less than 26 had failed, whilst 12 were still active and 6 had fledged.

The early start to ‘autumn’ migration was evidenced on 24 July at a newly-constructed ‘scrape’ on the Esk side of Rockcliffe Marsh, with 2 Little Ringed Plovers and a Green Sandpiper (JM). Port Carlisle had a moulting adult Curlew Sandpiper, 3 Black-tailed Godwits, 4 Turnstones and 4 Whimbrels on 30 July (NF); on 2 August there was a Ruff at Port Carlisle, and 9 Sandwich Terns, Greenshank and Whimbrel at Skinburness Marsh (CH).

Wader numbers and variety increased through August with for instance 600 Dunlin and 300 Ringed Plover at Bowness on 20th (NF), and up to 6 Curlew Sandpiper and a Little Stint at Port Carlisle by mid-September (CA). 40 Ruffs were present at Port Carlisle on 14 September (NF).

Forty Sandwich Terns were at Mawbray on 11 August (MP). A Black Tern on a flash near Finglandrigg on 31 August was an unusual record, with 27 Black-tailed Godwits and 4 Ruff (CA). Of raptors, a Marsh Harrier was at Tindale Tarn on 16 August (PH), and a Hobby flew over Wetheral on 22 August (RJ).

‘Winter residents’ began to arrive in September, Bramblings being widely reported from 21st (Tindale Tarn, PH), and Redwings from 26th (Geltsdale, JM), with Fieldfares following somewhat later.

SW reported an interesting westerly passage of Jackdaws heading through the ‘Tyne Gap’ at Tindale, with up to 900 per hour on 10 October.

The autumn arrival of Pink-footed Geese began on 5 September with 31 west over Tindale Tarn (PH). Thereafter, small and large skeins were reported very widely, the abundance of crops unharvested due to sodden ground providing food and delaying their usually more rapid transit south into Lancashire. Up to 2000 were present in the Wedholme area by mid-September (FM), and 5/6,000 on barley at Holme Dub on 8 October (FM). 8000 Barnacle Geese were present by 24 October on Burgh Marsh and Rockcliffe Marsh (RJ).

The roost of Teal on Wedholme Flow built up to 4600 on 14 October – the largest count FM had ever had of this species. (This species has a well-documented, but little-understood, population cycling over about 11 years.)

Two interesting forms of Canada Geese were present in late-October with Barnacles. A ‘Richardson’s’ – *hutchinsii*, a race of Lesser Canada Goose – was seen between Whitrigg and Longcroft on 25–26 (CA), and a Todd’s – *interior*, a race of Greater Canada Goose – was found by Darren Robson at Cardurnock on 27th (per CA).

Whooper Swans were first reported on 21 September, from Tindale Tarn (PH), and built up to 250+ in the Moricambe Bay area by 25 October (CH).

A Storm-petrel was far up the Solway at Bowness on 14 September, when a late Hobby was also present (JM). 3 Leach’s Petrels were moving south past Workington on the same day (CH), with another and a Manx Shearwater at Port Carlisle on 17th, (JM).

A moulting adult American Golden Plover first found by Darren Robson was seen by many observers in mid/late-September, with one, or two, other different birds also present in late October.

The intermittently-present Great White Egret showed well along the Solway inner shore on many dates in October, and Little Egrets were widely seen with up to 5.

Recorders

Colin Auld CA; Nick Franklin NF; Dave Hickson DH; Chris Hind CH; Pete Howard PH; Bob Jones RJ; Frank Mawby FM; John Miles JM; Mike Porter MP; Jeremy Roberts JR; Rob Shaw RS; Liz Still ES; Stephen Westerberg SW.

Field Meetings

11th May 2012: Longtown/River Esk

Leader Jeremy Roberts

Very heavy rain over the previous two days had raised river levels in the Esk, and the stretch of 'riffles' about half a mile above the town was totally submerged. This length attracts passage Little Gulls (that most beautiful of gulls) at times in the spring, along with terns, waders and other birds. Earlier in the day, the writer did spot an immature Little Gull with Black-headed Gulls, flighting over from one set of ponds to another, but there was no sign during the evening meeting.

In the cool, windy and showery conditions, many members of the swallow family were feeding – or at least searching for food – low over the water. With several Pied and a single White Wagtail were four Yellow Wagtails. (This stretch of river is one of the last places in the county to hold this delightful bird which is in severe decline.)

A Goosander already had eight small ducklings: these were vigorously diving in the muddy water whilst the duck kept guard, before the family hauled out on a gravel spit to dry off and preen: to the ducklings, the river in high spate and heavy showers was the world as they knew it! A drake Red-breasted Merganser was also roosting on the bank. Just one pair of Common Sandpipers was in evidence.

Towards dusk – thankfully now more settled and drying – we went from Longtown downriver to the Arthuret pools. Coots were on nests, but Mallard were the only ducks present. Amongst summer migrants were Blackcaps and Garden Warblers, and eventually we had good views of one of two Sedge Warblers singing in the rushes around the main pool.

Jeremy Roberts

26th May 2012: Geltsdale RSPB Reserve

Leader Stephen Westerberg

The day was cloudless and hot; an easterly gale certainly tempered the heat, but made locating and observing birds difficult. Steve Westerberg (site manager, RSPB Geltsdale) met us at Clesketts car-park at Hallbankgate, and we took a leisurely hike up the lane to Howgill, and then up one of the old mining tracks to provide a fine view over the newly planted 'Bruthwaite Forest', before dropping back down steeply to the delightful old farmhouse at Stagsike, now renovated by RSPB and developed as the reserve base and visitor centre.

A pair of Lesser Redpolls gave good views near Tortie, the male looking particularly sprightly, and 'in-the-pink'. A Reed Bunting was singing from the bushes on the more sheltered lower slopes by the burn.

The newly-planted woodlands on the slopes east of Howgill were greening up vigorously, although Steve pointed out some trees further from the little hamlet of

Howgill showing evidence of Roe Deer browsing, slowing their development somewhat. Grasshopper Warblers are a feature of this area, according to Steve, but the conditions certainly discouraged singing of this species.

We located a male Whinchat at the upper level of the planting, and Steve outlined the research being conducted here with this declining species. Two volunteers worked on the reserve on Whinchat, and with help from the rest of the team found no less than 75 territories and 44 nests. Detailed habitat information was gathered, looking at vegetation, slope, aspect and altitude, amongst many other things. Fourteen adults were colour-ringed as part of a RAS (Retrap Adult Survival) ringing project. Two days of heavy rain around the 23rd June resulted in about 60% of the nests failing (a figure probably repeated for a great many ground-nesting birds in that same extreme event). A few days later, several pairs were still in territory, there was an increase in singing males and more courtship was noted as bird got down to re-nesting.

A few butterflies were managing some activity despite the wind, with Green-veined Whites engaging in mating rituals, and a few Orange-tips and a single Green Hairstreak also seen.

Stagsike overlooks some fine damp pastures where many waders choose to breed, but as Steve explained this very unsettled spring with very cold and wet spells had caused losses of many broods, and although Redshank, Curlew, Lapwing and Oystercatcher were present, breeding activity was subdued.

The blind overlooking Tindale Tarn did not detain us for long: with strong easterly winds affecting the full reach of the water, waterbirds were keeping a low profile. Common Gulls were seen distantly – these have nested for a few years, but were flooded out both in 2011 and twice in 2012 (the re-lay being flooded at early chick stage) – and Mute Swans, Canada Geese, and the long-staying Black Swan were visible. A Sedge Warbler was managing song from deep in the wind-thrashed reeds.

It was excellent to have Steve Westerberg with us to explain the extensive management being carried out in this corner of the Reserve, and the many research projects in train, especially those involved with the species of conservation importance represented on the Reserve, especially the Black Grouse (which remained hidden today), the several wader species, the Whinchat and others.

Jeremy Roberts

15th June: Lamonby verges, flower-rich grassland

Leader Anne Abbs

It was a wet evening when seven members met at Greystoke Forest car park to take a look at the nearby verges. David Hickson kindly lent out several large golfing umbrellas which, thoughtfully, he had brought with him and which proved

invaluable as the rain steadily grew heavier.

Walking northwards from the car park entrance at Millfield Lodge we saw Great Burnet (*Sanguisorba officinalis*), Glaucous Sedge (*Carex flacca*), Meadow Buttercup (*Ranunculus acris*), Yellow-rattle (*Rhinanthus minor*), and both Common and Marsh Valerian (*Valeriana officinalis* and *V. dioica*), growing in profusion. Crossing the junction the verges were less shaded as the hedges were backed by fields. From here and beyond they form the Millfield Verges SSSI. Our species list grew adding amongst others: Bush Vetch (*Vicia sepium*), Quaking-grass (*Briza media*), Carnation Sedge (*Carex panicea*), and the occasional Twayblade (*Neottia ovata*), Common Spotted-orchid (*Dactylorhiza fuchsii*), and even a couple of Fragrant Orchids (*Gymnadenia conopsea*).

Later, we moved on a few miles to the Lamonby Verges and Fields SSSI. Along the verges we saw Bird's-eye Primrose (*Primula farinosa*), with its bright pink flowers, Butterwort (*Pinguicula vulgaris*), many large clumps of Twayblade, as well as other good indicator species such as Yellow-rattle, Devil's-bit Scabious (*Succisa pratensis*), and Tawny Sedge (*Carex hostiana*). The verges were starting to look rank in some areas with vigorous growths of Meadowsweet (*Filipendula ulmaria*) and scrub encroachment. Careful management will be needed to ensure that this area retains its natural beauty and the diversity of flowers for which it is well known.

The verges at both sites have a rich selection of species typical of wet meadow, base rich flushes and neutral grassland and give us an insight as to how other meadows and verges in the area may have looked in the past.

Marie Saag

17th June: Watchtree Bioblitz

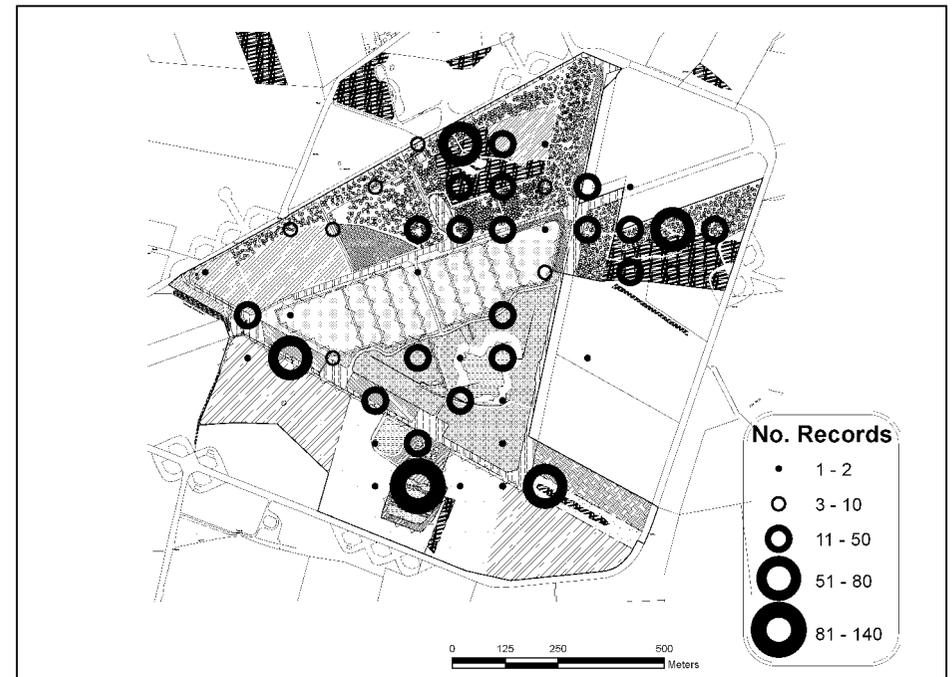
This was the first in Cumbria of a developing format for wildlife recording and public engagement with nature. The event was co-ordinated by Watchtree Nature Reserve, in partnership with Carlisle Natural History Society, Tullie House Museum & Art Gallery Trust's Natural Sciences section and Cumbria Biodiversity Data Centre. The main event was in effect a 'Public Open Day' with various wildlife experts and specialists leading various walks, undertaking recording activities and demonstrations. The event commenced on the Saturday evening with a bat walk followed by a moth trapping night.

In all approximately 150 people, many as families, came during the Sunday: sadly the weather was cold and cloudy which made enjoying wildlife such as butterflies and other invertebrates challenging to say the least. Despite this, with the help of the 29 experts who came along, and preparatory work already done by others, well over 600 species were recorded. At the Reserve office, Teresa Frost (ably assisted

on this occasion by Judy Palmer) demonstrated RODIS, the CBDC records entry system, and input many of the records from the day directly into the CBDC database. Video microscopes were on hand to inspect small specimens and aid identification and various live exhibits were also presented.

12% of the species that were recorded are rare, scarce or protected including protected amphibians and bats – and 18 were Biodiversity Action Plan (BAP) species. The map shown here shows the recording 'hotspots', of which woodland and water bodies were especially productive.

Steve Routledge noted nine rare, scarce or Red list water-beetles, as well as commoner species. Despite the weather the moth trappers recorded 78 species of which 18 were new to the site. Liz Still retained several to show visitors before releasing them. The highlights were Poplar Lutestring, an uncommon moth in north Cumbria and a very attractive Small Yellow Wave. Several uncommon 'micro-moths' were recorded on the day including *Coleophora serratella*, *Coleophora laricella* and *Mompha raschkiella*, all identified from larval cases or leaf mines by Steve Palmer, the Lancashire micro-moth County Recorder. Spiders found by Dave Blackledge included several uncommon species; plant species and



Map courtesy of Cumbria Biological Data Centre, Tullie House Museum

invertebrates, more or less equally, made up nearly 90% of the species recorded. Red-listed birds were: Grey Partridge; Skylark; Herring Gull; Song Thrush; Starling; Tree Sparrow; Cuckoo; Linnet; Yellowhammer. (A Red Kite had been seen the day before the event!)

David Clarke & Frank Mawby

[For more information and links, visit watchtree.co.uk/bioblitz.php]

7th July 2012: Geltsdale RSPB Bioblitz

This was a 'practice run' for a larger 'Bioblitz' event planned by RSPB for Sunday July 7th 2013.

Three of us (Chris Hind, Phill Brown, and the writer) collected lists of plants firstly from the slopes and old mine-workings and quarries on the south side of the Tarn Beck, south of Tindale village. This is an area quite well-known to local botanists, but it is always worth having up-to-date information, and – most usefully – provides the stimulus for pooling knowledge and collating information.

The steep banks above the beck have three clubmosses, Alpine (*Diphasiastrum alpinum*), Stag's-horn (*Lycopodium clavatum*) and Fir (*Huperzia selago*) in small quantity and form, and these were duly relocated – with some 'new' patches of Stag's-horn in a small quarry. Adder's-tongue (*Ophioglossum vulgatum*) was showing much more widely than I had seen before here, and there were a few shoots of its relative Moonwort (*Botrychium lunaria*). Phill showed us a few plants of Grass-of-Parnassus (*Parnassia palustris*) in the same area. The limestone rubble in the quarry just above had a different flora, with many plants of Autumn Gentian (*Gentianella amarella*) emerging.

In the afternoon we recorded along the old railway line westward from Midgeholme, and followed the track up to the dolerite Midgeholme Quarry. The same three clubmosses are colonising the flat areas of rubble below the quarry, and the tiny Lesser Twayblade (*Neottia (Listera) cordata*) which occurs patchily on the moors above, also grows under the deep heather in some abundance, although few plants were flowering.

Stephen Routledge recorded water-beetles; Steve Hewitt, John Parker and John Read recorded insects around Binney Bank and Old Water.

Jeremy Roberts

14th July 2012: Silloth Dunes & Mawbray Banks

Leader Geoff Naylor

A good-sized party of members assembled outside Silloth Nursing Home for what

became one of the better days of this year's soaking summer. Pausing first to admire a particularly tall specimen of Mullein in the garden, we were soon involved in the identification of an *Allium* sp., which was eventually pronounced as Field Garlic (*A. oleraceum*). Later another was provisionally identified as Crow Garlic (*A. vineale*).

As the weather improved, Ringlet, Meadow Brown, Small Heath and Green-veined White butterflies appeared. Unfortunately, the sought-after Graylings did not show. Still on the subject of Lepidoptera, our expert in the group (Mike Clementson) found several moths including Yellow Shell, Six-spot Burnet, Shaded Broad-bar, Latticed Heath and an unusual plume moth which he identified as Yarrow Plume (*Gilmeria pallidodactyla*). Common Blue was added to the butterfly list and the more interesting plants in this area were Bloody Cranesbill (in abundance), Sickle Medick and Duke of Argyll's Teapant.

We then drifted towards the beach where, amongst the lower-lying dunes, Sea Spurge and Portland Spurge growing close together provided a good opportunity for comparison. There were a few Common Spotted-orchids, then Purple Toadflax and the unusual Hoary Mugwort or 'Dusty Miller' (*Artemisia stelleriana*), an escape which is native in NE Asia and NW North America.

Returning towards the starting-point, Tassel Hyacinth was noted and a fine showing of Viper's Bugloss. Also at this point, Mottled and Field Grasshoppers were pointed out. During the lunch break, a large dragonfly called in and was almost certainly a Southern Hawker.

After lunch, the whole group drove to Mawbray Banks with little hope of finding Bee Orchid which had not been seen there since the discovery of a sizeable colony there about five years ago. However, a single plant, well into flower, was found, but no more despite a careful search. A similar assemblage of butterflies to the morning was noted with the addition of Small Tortoiseshell and the undoubted highlight (as well as Bee Orchid) being Dark Green Fritillary.

Towards the end of the meeting a group of no fewer than 14 Bee Orchids was found in a new part of the site – an exciting record for one of the most northerly localities for the species in Britain.

Geoff Naylor †

4th August 2012: High Stand and Miltonrigg Woods

Leader Jeremy Roberts

The Green-flowered Helleborine (*Epipactis phyllanthes*) has been known in dune-slacks in the southwest of Cumbria, at Sandscale and North Walney, since at least 1951, when it was discovered (or at least identified with this species) by I.W. Evans and A.W. Westrup (Halliday, 1997). It was only identified in the north of

the county in 2008 (Roberts, 2008). There are now four known sites in the north, and it is most likely that others await discovery.

The main focus of the outing was to look at the two larger of the local colonies, and distinguish them from the much more frequent Broad-leaved Helleborine (*Epipactis helleborine*) growing intermixed at both sites.

A large group of 24 members was assembled at High Stand Plantation near Armathwaite, in unpromising weather, with thunderstorms and heavy rain forecast. We had plenty of thunder, but were lucky in avoiding the heaviest rain, and managed to see all we wanted.

The population of Green-flowered Helleborine in High Stand (NY48.49 and 48.50) is mostly concentrated in areas which have a history of disturbance, such as the spoil-heaps from long-abandoned gypsum excavations, along tracks, etc. New patches are being found each year, and the plant may be more widespread – or still colonising new areas.

The season seemed not to have suited the plants well, and although many plants were in good flower, the general vigour of plants was less than in some other years, and a few areas which held plants in past years had none this year. It has to be said however that the plants can be very inconspicuous in the deep shade in which they prefer to grow – especially on a gloomy day. Nonetheless, dozens of plants were seen, and in one area in close proximity with the Broad-leaved Helleborine, allowing comparison. The plants of Green-flowered were very consistent in appearance, besides obvious variation in height and in number of flowers. The critical differences between the two species lie in the amount and development of downiness on the upper stems and the ovaries (seed-capsules), Green-flowered being largely hairless and Broad-leaved quite downy; and in the form and colour of the lower petal. In both, this has two parts, a basal ‘bowl’, which is green inside in Green-flowered, and purple-brown in Broad-leaved, and an outer ‘lip’, which is narrow, pointed, and pale green in Green-flowered, and broader and variably suffused with pink or purple in Broad-leaved. (As might be expected, there are complications: a form of Broad-leaved occurs rarely which remains green in the bowl and lip. This form does occur here, but had not deigned to put in an appearance this year.)

A few Common Twayblades (*Neottia ovata*) were the only other orchids seen in close proximity. Two patches of the far-from-common Common Wintergreen (*Pyrola minor*) were located on the trackside nearby, some stems with a few flowers remaining, but most in fruit. Other plants admired on the pathsides were large spreads of the delicate Wood Horsetail (*Equisetum sylvaticum*) and huge sprays of Lemon-scented Ferns (*Oreopteris limbosperma*) amongst other ferns.

A fine Southern Hawker dragonfly – expertly captured by a net-wielding Steve Hewitt – was much admired, and a few hoverflies such as the pretty grey-and-yellow *Leucozona glauca* were nectaring on Wild Angelica (*Angelica sylvestris*). Steve showed examples of the wood-boring long-horn beetles *Judolia cerambyciformis* and *Ruptela maculata* nectaring at umbellifers.

A surprising fact in the four recent discoveries of Green-flowered Helleborine has been that two different varieties are represented. The plants at High Stand can be readily allocated to ‘variety *pendula*’, as can the forty or so plants by the River Eden at Lacy’s Caves, whilst the plants we were to see next, at Miltonrigg, are examples of ‘variety *vectensis*’, as also appear to be a small number of plants found on a roadside near Kings Meaburn in 2010.

The plants at Miltonrigg (NY56.61) grow on a roadside and along the edges of tracks in the wood, with a very few (at least as so far found) any distance into the wood from the tracks. The plants here again were less vigorous than in some other years, but still considerably more robust than at High Stand (some measured at over 60 cm in 2008!), and were only just coming into flower, a few of the lowest flowers being open. This variety mainly differs in having a flower which opens much less widely and a lip which is a deeper green, and protrudes from the flower, rather than being bent under the bowl as in *pendula*. Whilst these two varieties are said not always to be so readily distinguishable, the forms seen today seemed distinct (see Plate 1). The Broad-leaved Helleborines were here much more frequent than at High Stand, and some vigorous plants were in fine flower. Common Spotted-orchids (*Dactylorhiza fuchsii*) were still in flower along the track-sides, and Common Wintergreen featured again, with two small patches (not flowering) seen.

Marsh Tit was heard in Miltonrigg Wood, but birds were not much in evidence at this quiet time. A large clump of Shaggy Inkcap (*Coprinus comatus*) had some heads already dissolving into ‘ink’.

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Jeremy Roberts

24th August 2012: Bat Walk, Finglandrigg Wood NNR Leader Robin Hodgson

Fourteen members attended the walk on a warm, dull, but dry evening. Starting

from the Haverlands layby, we visited 18 boxes, a mixture of the original old wooden ones erected over 12 years ago and the newer Woodcrete boxes erected in 2003. The first Woodcrete Box (No. 8) provided us with a remarkable seven Soprano Pipistrelle Bats (*Pipistrellus pygmaeus*) and everyone was able to note the features of one that Robin captured. It was a female and he explained that this was probably a breeding group of 1 male and 6 females. The males compete for females and the more successful will gain the most females. We were also invited to take in the distinctive but not unpleasant bat odour. He explained the differences between the Soprano (which echo-locates at 55 kHz) and the Common Pipistrelle (*Pipistrellus pipistrellus*) which calls at 45 kHz. Overall the two Pipistrelles are the most common of the UK bat species, the 'Soprano' seemingly being the more numerous, and also more likely to be found in this type of habitat.

The next boxes checked were a cluster of three wooden boxes. In box 3 a roosting Blue Tit was disturbed; in 4 a Copper Underwing moth was identified; 5 was empty and the old nest of a Blue Tit was removed. A little further along at the next cluster, Woodcrete box 5a had another roosting Blue Tit, 1a was empty and 5b held another 4 Soprano Pipistrelles, although Robin wondered whether some might have been ones displaced from the first box. Wooden box 6 held a roosting Great Tit and 7 was empty except for an old tit nest and another 4 Copper Underwings. We commented on the number of this species of moth using the wooden boxes, and on how early the tits settled in to roost.

Near the 'Ratcliffe memorial', Woodcrete box 7a held another 3 Soprano Pips, 7b contained a female Soprano Pip and 7c only had an old tit nest. We remarked on the ability of Blue Tits to squeeze through the narrow bat slot and also to make a nest in a box with the hole so close to the bottom of the box. The newer designs of this box have a wood 'foil' attached to the removable front which may be to deter Tits.

As the light began to fade we decided to inspect boxes on the south side of the reserve, which had not been checked for a number of years. Woodcrete box 9a had droppings but no bats and 9b contained an old tit nest but also had bat droppings. Moving to a Scots Pine on the south edge of Little Bampton Moss, Woodcrete box held 5 Soprano Pips and wooden boxes 18, 19 and 20 held respectively a roosting Blue Tit, and old nest and empty but for some bat droppings. With dusk rapidly descending we decided to end box checks and concentrate using the bat detectors. Given the number of bats found, very little activity was detected although a couple of Pipistrelles did register near the Haverlands layby. Tawny Owls were heard calling – which prompted Robin to note that they will prey on bats.

In conclusion, we noted that Soprano Pipistrelles show a preference for the Woodcrete boxes (this also became evident at Watchtree the following week);

Blue and Great Tits regularly nest and roost in either type of box; Finglandrigg Wood NNR seems hold a successful and growing population of Pipistrelle Bats.

Frank Mawby

Notes and Records

Slow-worms (*Anguis fragilis* L.) in Dalston churchyard

In the 1950s I remember taking a Slow-worm into Dalston School. After it had been examined by everyone, it was released back into the churchyard. These silky-textured creatures are somewhat elusive, cold-blooded, burrowing, legless lizards. In June 2012 Tullie House held only six records of Slow-worms from Dalston Parish, exclusively from Dalston Churchyard, the next nearest recorded population being around 20 miles away. Slow-worm distribution in Cumbria is biased towards the south and west. Nationally they are threatened, and our small isolated population is very important locally.

In 1990 a national scheme called *The Living Churchyard* led to a conservation management plan for the churchyard being agreed and this had been carried out for the past 20 or more years. It took into consideration the requirements of the Slow-worms. A metre-wide strip was left uncut alongside Church Lane wall and another area was cut only once or twice a year. In 2012 the cutting regime was changed from once a year to once per week. The metre-wide strip was also cut. A large amount of good Slow-worm habitat was destroyed and several dead ones were found.

Slow-worms are protected under the Wildlife & Countryside Act and it is illegal to kill or injure them. The Police Wildlife Crime Officer has accordingly sent an advisory letter to the Parish Council, which manages the churchyard.

Slow-worms are rarely seen in the open and are difficult to monitor. However, they like to lie under pads of black roofing-felt and by placing these artificial refugia for them to shelter under, their numbers and distribution can be assessed. In July 2012, I was able to show that a small population still existed in Dalston churchyard, but was confined to an area of around 30 metres × 25 metres near the church. Many of the individuals were gold-coloured juveniles around 20 cm in length. A count on 17th July 2012 yielded 15 adults and two juveniles. Using pads it is accepted that less than 50% of total individuals will be counted, suggesting a breeding population in excess of 30 adults. As Plate 4 shows, they can often be found in groups.

Slow-worms hibernate from November to March and may use the interior spaces in old walls or under large slabs or fallen tombstones. They mate in April and May and at this time adult males actively seek out females. The female incubates eggs within her body, producing live young. From three to twenty young per female,

each about 50 mm long, are usually born in August. However, a birth I was fortunate enough to witness was in mid-October.

Cats have been seen preying on the Slow-worms. Like Common Lizards, Slow-worms have a defence mechanism: when attacked they are able to shed their tail, which continues to twitch and distracts the predator.

Provided the habitat can be sympathetically maintained, this population may yet have a long future.

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[More information and images can be found on David's website at:
www.wildcaldew.wordpress.com. Ed.]

The tachinid fly *Gonia picea* (Robineau-Desvoidy, 1830) new to Cumbria

On 16th April 2012, I noticed a large fly darting about on patches of Forget-me-nots in my garden. It looked 'different', so I took several pictures (see Plate 3) and submitted them to the *Dipterists' Forum*. The answer that came back was that this was *Gonia picea* (a member of the family Tachinidae). This surprised me, since from the online maps on the National Biodiversity Network, the species appears confined to southern England and East Anglia, with a very few scattered observations elsewhere, the nearest to Cumbria being one in Aberystwyth in 1989. In response to my surprise, Chris Raper from the *Forum* wrote: '*It is primarily a southern species on downland, but in the last 2–3 years it has been cropping up on rougher-looking sites, near farmland, road verges and cliffs. I don't think it has moved all that much further north but it has appeared in more localities within the predicted range. In the literature it does imply that the species has good years and bad years, which I would guess would coincide with periods of successive warm/sunny springs, like we have had in the last few years.*'

The species is known to prefer dry to moderately damp meadows; its flight season is March to June. The larvae parasitize Lepidoptera caterpillars, particularly those of the Antler Moth (*Cerapteryx graminis*). However, the adults clearly like warm spring sunshine, which we have had in abundance early in the last few years (when the remainder of each year has been notable for a sunshine deficit). This tachinid has been having a good year quite widely, according to the on-line dipterists' fora: Steven Falk has commented '*Gonia picea has turned up very widely in southern Warwickshire this spring. I only added it to the county list two years ago. I used to think it liked calcareous grasslands, but some of its sites here are coarse grasslands on rather acidic soils and post-industrial sites.*'

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Lobaria lichens in the north-western Pennines

Lobaria species ('lungworts') and other 'macro-lichens' commonly associated with them (forming part of the Lobarion community) are now extremely rare in the Pennines and rare in Cumbria generally. Whilst visiting the attractive gillside woodland in the upper reaches of the Raven Beck, SE of Outhwaite* [NY64] in August 2012, I was surprised to find a previously unrecorded patch of *Lobaria pulmonaria* (Plate 5). The woodland here is in a deep-cut, sheltered part of the valley and has the character of 'pasture woodland'. It contains many old trees – oak, ash, hazel, birch and alder especially. Despite checking innumerable trees, I found only one – an Ash (*Fraxinus excelsior*) – that had any lungworts. The patch of *L. pulmonaria* looked in reasonable condition and was about 0.1 × 0.1 m in size, about 1.5 metres above the tree base. No other significant lichen species were present. Relict Lobarion communities in Cumbria are usually restricted to very old, large trees, but in this instance the host tree had a girth of only 1.58 m and had a single tall trunk. It is within 6 metres of the waterside at about 220 m altitude. This is a new hectad for this species. Not on this tree but on several other Ashes and *Salix caprea* were large fruiting patches of *Peltigera horizontalis*, an old-growth forest lichen and one that is often associated with Lobarion lichens, and may remain when they are long gone. (*L. pulmonaria* was also recorded lower down the Raven Beck, near Kirkoswald until at least 1976.) A veteran Ash in How Gill, Geltsdale [NY55] is far more typical of trees that sometimes support Lobarion communities in Cumbria. It is an amazing survivor: a huge limb hangs almost ominously over the gill, its weight born by the hollow main trunk, which has a girth of nearly 5 metres (Plate 6). How much longer this ancient giant will survive is an open question, but meanwhile it continues (2012) to support a small amount of rather stunted *L. pulmonaria* on its SW aspect (c. 0.01 m²) and a rather larger amount (c. 0.03 m²) of the shade-loving *L. virens* on the underside of the major limb on its upstream aspect (Plate 5). The altitude here is about 270 metres. Both situations are examples of remnants of a lichen community that is fast declining in the county – their extreme sensitivity to the air pollution of the present and last two centuries being a major factor. Sadly, future generations of naturalists will be lucky indeed to see even such small traces as these. At the time of publication, the Ash Die-back disease *Chalara fraxinea/Hymenoscyphus pseudoalbidus* has been widely in the news and already found in Cumbria. It remains to be seen how this new threat will affect lichen communities.

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[* The gill here contains much other interest – including some uncommon fungi – reported in *Carlisle Naturalist* 16:1 by Clarke (2008). Ed.]

The nationally scarce fungus *Strobilomyces strobilaceus* Berk. – a first county record?

When walking in Brundholme Wood, Keswick on 23rd August 2007, I discovered a dark grey bolete with a shaggy cap which I had never seen before but which I recognised as *Strobilomyces strobilaceus*. I knew it was uncommon, but at the time did not know how rare it was in northern England. Returning the next year (29th August 2008) I found it again in the same spot, and then on 29th September 2011 I noted 'one dried up specimen and nine slimy black messes'. It had obviously fruited well but I was too late! There were two fruit bodies this year (mid-August, 2012) again under the same oak tree (Plate 2).

By now I had begun to realise this was a really good record for Cumbria. By chance I happened to see on local TV an illustration by Beatrix Potter of this species and wondered if this was indeed another Cumbrian specimen. This needed following up! When Beatrix was a child in the late 19th century, the Potter family's summer holidays were spent near Dunkeld in Perthshire, where Beatrix made the acquaintance of Charles McIntosh, a naturalist who did much to encourage her study of fungi. So, were her illustrations of *Strobilomyces* of Cumbrian or Perthshire specimens? Not having all the data accompanying these, I contacted Perth Museum, which has two illustrations. Unsurprisingly these are of specimens from near Dunkeld. The Armit Museum in Ambleside also has two illustrations, luckily both with data. Again, these are of Perthshire specimens.

In the absence of records for Cumbria on the web-based sources (the National Biodiversity Network and the British Mycological Society listings), it does seem that this may be the only record for the county. At present the species appears to be safe at the present location, but the oak tree which is probably its host is in a rather vulnerable position, perched on top of a bank which is steep and eroding. A further search of the surrounding area in 2013 therefore seems to be needed.

Strobilomyces strobilaceus is an unusual bolete, dark grey with pale grey pores, the whole darkening with age. The cap surface is covered with soft, dark, wig-like scales, giving rise to its common name of 'Old Man of the Woods'. It is widespread but rare in Europe, and on the Red Data List in many countries. In the U.K. it is listed as *Vulnerable* on the provisional RDL of 2007. It is very local in Britain, with hardly any records outside four main areas – S.E. England, Yorkshire, the Welsh Borders and Perthshire. It is ecto-mycorrhizal on live tree roots and has been found associated mainly with beech and oak, but also with hornbeam and, more rarely, pine in mixed woodlands. It is very distinctive but often not easy to see because of its dark coloration.

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Incidence of the leg diseases *papillomatosis* and *knemidocoptiasis* in Chaffinches in West Cumbria

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For reasons that are not well understood Chaffinches *Fringilla coelebs* seem to be unusually susceptible to diseases of the legs, in particular a viral infection known as *papillomatosis* and a form of mange called *knemidocoptiasis*. From time to time I have noted birds with one or other of these two diseases and between August 2006 and April 2009 systematically collected sightings based on the small flock of Chaffinches that frequents my garden in Gosforth, West Cumbria (NY0703) in the non-breeding season, in an attempt to determine how frequently they occurred. The flock typically numbered around 15 birds, though the total number of individual birds visiting the garden over the course of a year was probably much higher than this, perhaps totalling a few hundred birds. To determine the incidence of the diseases I waited until the flock settled on the lawn in my back garden (having scattered a handful of sunflower seeds there beforehand) and counted the number of birds present and the number with diseased legs (the latter are easy to spot with the naked eye at the distances involved, usually no more than 10 m, but confirmed through binoculars whenever possible). Only one count was made per day, usually mid-morning, and on average counts were made about four times a week. The figures quoted below are aggregates of these daily counts.

Incidence of *papillomatosis*

Papillomatosis is caused by the Chaffinch papillomavirus (CPV), infection with which gives rise to a series of warty growths or excrescences on the feet and less often the lower legs. In extreme cases the whole foot may be covered in growths making it look as if the bird was wearing miniature 'moon boots'. Sometimes both feet were affected but this was not invariably the case and more often than not just one bore the lesions. Estimates of the incidence of the disease are summarised in Table 1. It is difficult to know what biases there are in these figures, but they make the critical assumption that infected and non-infected birds are equally likely to remain in the study area – a difficult assumption to test, but one that is probably sound. There was some variation in the incidence of the disease between years, with the figure for 2006–07 being statistically significantly lower than that in 2008–09 ($\chi^2 = 4.89$, $df = 1$, $P < 0.05$) but not (quite) significantly different from

that in 2007–08 ($\chi^2 = 3.38$, $df = 1$, $0.1 > P > 0.05$). Overall 3.1% of the birds present were estimated to be infected with CPV. There was no obvious seasonal trend in the incidence of the disease (see lower half of Table 1), though the slightly lower figure for July and August may be because the birds present were mainly juveniles, that is were recently fledged birds, in which external signs of infection had yet to become apparent.

Table 1. Incidence of papillomatosis in Chaffinches in Gosforth, West Cumbria

	<u>No. of cases</u>	<u>Total birds checked</u>	<u>Incidence (%)</u>
Period of observation:			
August 2006–April 2007	19	957	2.0
July 2007–June 2008	39	1022	3.8
July 2008–April 2009	26	718	3.6
All combined	84	2697	3.1
Months of observation:			
July–August	5	230	2.2
September–October	10	261	3.8
November–December	20	617	3.2
January–February	26	990	2.6
March–April	22	576	3.8

Incidence of knemidocoptiasis

Knemidocoptiasis, or knemidocoptic mange as it is sometimes known, affects the legs and feet of a variety of bird species, but especially galliform, psitticine and passerine birds particularly finches *Fringillidae*. It is caused by a scaly leg mite, *Knemidocoptes jamaicensis* (Turk 1950), and manifests itself as a series of scaly lesions, which, at their most extreme, can cover the whole of the lower legs and feet. Although it is sometimes said to be very common on Chaffinches and less frequently other finches such as Greenfinches I did not record it once during the main study period, and have only recorded it on a couple of occasions since, as follows:

10th January 2012, female, scaly right leg.

21st & 22nd January 2012, male, scaly right leg (assumed same bird)

On such meagre data it is impossible to provide even an approximate estimate of the incidence of knemidocoptiasis in West Cumbria, but it is clearly much less common than papillomatosis.

Comparison with earlier studies

There is little published information on the incidence of papillomatosis in Chaffinches (*cf.* Literak *et al.* 2003), but among the few earlier studies are figures from Britain of 1.6% (2 of 125 birds, Macdonald 1965), 1.6% (4 of 244 birds) and 50% (10 of 20 birds) (both from Blackmore & Keymer 1969), and from the Netherlands of 1.3% (330 of 25,000 birds, P.H.C. Lina, quoted in Literak *et al.* 2003), figures broadly comparable with the present study.

As for knemidocoptiasis, Macdonald & Gush (1975) have reported a figure of 1.6% (8 of 500 birds) over the two year period between June 1971 and June 1973, and an overall figure of 3.3% (32 of 965 birds) for the seven year period between 1974 and 1980 based on birds caught in Devon. There appeared to be considerable variation between years (range 0.7–7.6%), though this may in part be an artefact of the comparatively small sample sizes. Whatever the true figures, they are substantially higher than found in West Cumbria.

Little is known about the consequences of these diseases for the birds themselves. In general they do not appear to suffer any significant discomfort from the growths – they do not limp, for instance – but much remains to be learned. This is also true of many other aspects of these diseases, especially how they develop and spread.

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How 'resident' are Cumbria's Cormorants?

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Many of our most familiar birds are often described as 'residents', a designation generally based on two things: firstly that the species is sedentary (that is, such movements as do occur are usually of a local nature), and secondly that it is present throughout the year in numbers that do not vary beyond those associated with the annual cycle of gains and losses due to reproduction and mortality. The House Sparrow and Magpie are typical examples. The position is more complicated, however, when there is a greater disparity in numbers between the breeding season and the winter months. When the non-breeding numbers exceed those in spring it is obvious that there has been an influx of birds into the area in winter, but this can mask what happens to the local breeding population. It is often assumed that these local birds remain where they are but this is not necessarily so.

A typical case in point as regards Cumbria is the Great Cormorant (for the sake of brevity referred to hereafter simply as the 'Cormorant'). The county currently has a breeding population of about 150 breeding pairs (based on 2010 figures) representing a summer post-breeding population of about 600 individual birds, which includes those birds that have just bred, their newly fledged young and such birds of pre-breeding age as are in the general area of the natal colony at this time of year. No very precise figures are available for the size of the wintering population, but based on counts appearing in *Birds & Wildlife in Cumbria* it has probably been in the range 1,000–2,000 birds in recent years. Rough and ready though these figures are, they do provide good evidence that there is an influx of birds into the county each winter.

Such figures cannot throw any light on the question of whether the local breeding birds remain in the county year-round or move away to winter elsewhere. An answer can, however, be obtained from ringing recoveries. Fortunately over the past thirty or more years good numbers of nestling Cormorants have been ringed in Cumbria principally at the Grune Point colony near Silloth (*cf.* Carrier & Baker 1991). In recent years this colony has supported typically 50–70 pairs, representing a little under half of the county's breeding population. (This colony has been known since the 1980s – offshore structures in the form of a WWII bombing target and a metal-frame lighthouse have provided safe breeding and

roosting sites: Plates 7 & 8.) The only other colony of roughly comparable size is that at St Bees Head, but this is not accessible for the purposes of ringing. To the end of 2011 some 225 recoveries had been generated by ringing in Cumbria, of which 75 were in the winter months, for present purposes taken as November to February inclusive (Table 1, page 48). Of these 14 were in Cumbria, 6 from the nearby waters of Dumfries & Galloway. Of the others, 17 were from northern England (excluding Cumbria), 17 from the Midlands and Southern England combined and 1 from Wales. Good numbers cross the English Channel to reach the Atlantic coast of France where there were 14 recoveries and 6 had moved as far south as the Atlantic coast of Iberia. The most distant recovery to date has been a bird recovered in southern Portugal some 1,790 km from where it had been ringed in Cumbria. Movements generally are orientated in a southerly direction, the few exceptions involving short distance movements into, for instance, Dumfries & Galloway.

Overall, winter recoveries in Cumbria amounted to 19% of the total. It is difficult to know just what biases there are in the data and, though we cannot exclude the possibility that some are present, doubt that they have a major effect. A key assumption underpinning this analysis is that there is no significant geographical variation in recovery rates, and, in particular, that birds dying near the natal colony are neither more nor less likely to be recovered than those found farther away. In fact we reason that birds dying inland or on sandy shores (that is, places which are regularly visited by people) are somewhat more likely to be recovered than those on rocky shores (which are not), and, this being the case, we suspect that the proportion recovered locally may be *slightly overestimated*, rather than underestimated. Recognising, therefore, that the figure is at best approximate, it seems that something like 80% of Cumbrian Cormorants winter outside Cumbria. Even within the roughly 20% that remain some may have moved in excess of 50 km, either into the Lake District proper or to the south of the county (the colonies at which ringing has taken place are in the north of the county), whilst others may simply have crossed the Solway Firth to the waters off southern Scotland on their daily feeding excursions. Given that the maximum distance that Cormorants will fly in a day in search of food is about 25 km (Platteeuw & Van Eerden 1995; RMS, unpublished data), a better definition of 'residency' might therefore be birds that have been recovered in winter within this distance, whilst those that have flown further than this have effectively left their breeding area. On this basis, 10 of the 75 winter recoveries (13%) can be thought of as having been 'resident' year-round; if 50 km is selected as the cut-off between 'resident' and 'non-resident' then the percentage of resident birds becomes 23% (17 of 75 recoveries). These figures also make the important assumption that the tendency of

Cormorants to move away from their natal colony does not vary with age. To investigate this point we determined the age distribution of local versus distant recoveries (Table 2, page 48). From this it is apparent that birds of breeding age (Cormorants do not usually breed for the first time until they are at least three years old) show no obvious tendency to remain close to the natal colony as they get older. Indeed, if anything, the data suggest that adults are more likely than immature birds to winter elsewhere, but this is probably an artefact of the comparatively small number of recoveries available for analysis. Evidence from colour-ringing at a colony in Pembrokeshire is that Cormorants select a place to winter in their first autumn and return there in each subsequent winter (RMS, unpublished data). It should also be emphasised that essentially all birds of breeding age return to the natal colony to nest; birds do occasionally move to other colonies to breed but it is very much the exception (Carrier & Baker 1991); similarly there is no evidence that birds from colonies elsewhere move to breed in Cumbrian colonies to any great extent though undoubtedly movements between colonies do sometimes occur, as, for instance, when new colonies are established, as has happened several times in Cumbria in recent decades (MC & RMS, unpublished data).

The conclusion we draw from the points raised above is that by any reasonable definition only about 20% of Cumbrian Cormorants can be considered 'resident' throughout the year. After allowing for mortality, and remembering that many young birds die within the first few months of fledging, this represents at most about 100 birds. Thus, overall only between 5% and 10% of wintering birds in Cumbria originate from within the county (c. 100 birds of a wintering population of 1,000–2,000 birds). Where then do the remaining 90–95% come from? Ringing again provides an answer.

We have on file records of 47 birds ringed as nestlings outside Cumbria and recovered in Cumbria in the winter months (November–February inclusive); a breakdown of these is shown in Table 3, page 48. As this set of data is almost certainly incomplete, we also show the breakdown for all months combined as published by the British Trust for Ornithology (Robinson & Clark 2011). This second group of recoveries may, of course, include non-breeders summering in Cumbria and birds passing through the county, as well as those that have already reached their destination. Both, however, indicate that the majority of birds visiting the county come from colonies immediately to the north and west of Cumbria along the coast of Dumfries & Galloway. Nevertheless there are some from much further afield, notably the east coast of Scotland and from the Puffin Island colony just off the eastern end of Anglesey. There is the possibility of a marked bias in these data since (a) only colonies at which ringing has taken place

can generate recoveries in Cumbria (and comparatively few are accessible for this purpose), and (b) the more birds that have been ringed in a particular colony, the more recoveries they are likely to have generated. Unfortunately no statistics are available on colony-specific ringing totals by some allowance might be made for these factors. Despite this, it is clear from Table 3 that the largest percentage of recoveries come from areas relatively close to Cumbria – much the sort of pattern one would expect on the basis of the movements shown by birds breeding in Cumbria, and what is known of Cormorant movements generally in Britain (Coulson & Brazendale 1968; Wernham *et al.* 2002).

In summary we conclude that Cormorants breeding in Cumbria mainly spend the winter months away from their natal colonies with only a small percentage (around 20%) remaining year-round, and that 90–95% of those present in the county in the non-breeding season are visitors from elsewhere.

Acknowledgements

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Table 1. Winter recoveries of Cormorants ringed as nestlings in Cumbria as a function of distance from the natal colony.

Distance moved (km)	Recovered in Cumbria	Recovered outside Cumbria
=< 25	5	5
26-50	6	1
>50	3	55
<i>Total</i>	<i>14</i>	<i>61</i>

Table 2. Age of Cormorants ringed as nestlings in Cumbria and recovered in mid-winter.

Age on recovery ¹	No. of mid-winter recoveries		
	=< 25 km from natal colony	25-50 km from natal colony	>50 km from natal colony
1	7	1	31
2	1	2	5
3	2	2	15
=< 4	0	2	17
<i>All combined</i>	<i>10</i>	<i>7</i>	<i>58</i>

¹ Age: 1, recovered in first winter; 2 in second winter, etc.)

Table 3. Origins of Cormorants wintering in Cumbria but ringed as nestlings elsewhere.

Area ringed	No. recoveries: Nov-Feb	No. recoveries: all months combined ¹
Orkney	1	6
Highlands	3	10
Grampian	1	1
Fife and Lothian	1	10
Strathclyde	0	7
Dumfries & Galloway	35	121
Isle of Man	0	19
Ireland	0	13
North Wales	6	53
West Wales	0	4
Northeast England	0	10
<i>Total</i>	<i>47</i>	<i>254</i>

¹ Taken from Robinson & Clark (2011) and based on all British and Irish ringing recoveries.

Geoff Naylor

With the sudden and unexpected death of Geoff Naylor in August, this Society lost one of its most active, knowledgeable and best-loved members. Gifted naturalist and obsessive recorder, Geoff holds the record for documenting the broadest range of wildlife in Cumbria, according to data collated at Cumbria Biodiversity Data Centre. Geoff made a major contribution to the study of Cumbrian natural history and has left a significant legacy of information for posterity.

Born in Knaresborough in 1939 he grew up in Alwoodley, Leeds. From an early age, Geoff developed a keen interest in all aspects of nature. He obsessively listed everything he saw and accumulated a valuable archive of his natural history observations.

Gaining entry to Leeds University, he originally studied physics but then changed to geology and obtained a BSc with honours. Geoff went on to teach geology and geography at Allerton Grange School and was a very popular teacher, leading many field trips studying not just geology but sharing his love of all types of nature, particularly bird watching, with pupils and staff. Geoff played cricket and basketball for the staff team and was a skilful player of both games, retaining a lifelong passion for cricket.

In 1968, he took up a teaching post at Milton Hall School in Brampton. When the school closed, Geoff taught at a secondary school in Sunderland for three years, commuting weekly, then took early retirement and moved to Milton where he lived until his death.

Retirement gave Geoff the opportunity to spend more time pursuing his natural history interests. At this time he became actively involved in this Society and quickly became a leading member and served on Council from 1993. His extraordinary breadth and depth of natural history knowledge and experience made him the ideal 'Recorder' for the Society, in which capacity he performed diligently for many years. He was well known to members through his inimitable presentation of recent records at indoor meetings, his regular publications in the *Carlisle Naturalist* and his frequent leading of field trips.

Geoff was a remarkable all round naturalist and made significant contributions to several fields of Cumbrian natural history. He provided some 22,500 records of 1,824 species in 350 Families of 133 different Orders of wildlife within the county. His expertise ranged across birds, wildflowers, fungi, insects and molluscs. Butterflies are amongst his most frequently recorded species and Geoff was also the county butterfly recorder, writing the annual report of that group for the Cumbria Naturalists' Union *Birds & Wildlife in Cumbria* publication. He ran a

moth trap in his garden for many years, carefully listing all the species and numbers found throughout the seasons and over the years. Phenology was a particular fascination of Geoff's and he kept careful records of the first and last dates of different species each year. He led numerous fungal forays over the years and his fungi records form the backbone of the data held by CBDC. Trees were another particular interest of Geoff's and the walls of his bedroom were decorated with the pressed leaves of different tree species, both native and exotic.

A life-long bird-watcher – he hated the more modern term 'birder' – he was a founder member of Cumbria Bird Club in 1992 and single-handedly computer databased all the 70,000 records from which the maps were generated for *The Breeding Birds of Cumbria* atlas published by the Club in 2002. Geoff was also one of the longest serving volunteers in the national Wetland Birds Survey operated by the British Trust for Ornithology, having begun in his home county of Yorkshire in 1958 and continued at Talkin and Tindale Tarns after his arrival in Cumbria in 1968. Although sadly his eyesight began to fail latterly, affecting his bird-watching, it was typical of his character that he uncomplainingly carried on – continuing to recognise the birds by their calls. Ever ready to freely share his knowledge and enthusiasm, he happily led dawn chorus field meetings for the Society in recent years.

Geoff was a regular volunteer at Tullie House Museum for over 20 years, becoming a key member of the Natural Sciences team here. Geoff did an immense amount of invaluable work on the records of the collections and in particular the Cumbria wildlife records database now operated by Cumbria Biodiversity Data Centre. In this time he personally typed in 231,558 records of individual wildlife sightings into the computer database. In that time I came to rely heavily on his extensive natural history knowledge and experience, as well as his ready opinions and ever present sense of humour. Geoff also liked to be grammatically correct and, without fear or prejudice, would automatically correct anyone who wasn't, as I learned to my cost. He was also most helpful with natural history events and activities both at Tullie House and with Carlisle Natural History Society, where his experience as a former teacher was a great asset.

Geoff also enjoyed discovering the wildlife in other parts of the world and made numerous trips to visit friends and family in various countries as well as specific wildlife holidays in search of new birds, butterflies and plants for his ever-growing life-list. He loved those trips to Israel which combined seeing his daughter and her family and lots of new birds. His single-mindedness was not always immediately appreciated in Israel and he was detained on several occasions by the security forces for suspicious behaviour – walking along the border with Egypt or Gaza or in a restricted area with binoculars, camera and a notebook, but he always came

back smiling to his daughter's house and the soldiers got a lesson in bird-watching.

Geoff was so unassuming that few knew all the talents he had. Whether talking to a 5-year-old or an eminent professor, Geoff's direct manner of cutting to the essential interest without regard to his or anyone else's status was both disarming and effective. Whether going for a country walk with his grandchildren or analysing biodiversity data on computer, Geoff's infectious passion and enthusiasm for nature shone through everything he did. Always helpful, direct and full of dry humour Geoff will be a great loss to his many friends and colleagues.

He died at home 20th August, whilst working at his desk writing up his natural history records. He had been volunteering in Tullie House Museum as usual just a couple of days before his death. His archives and books have been given to Carlisle Natural History Society and Tullie House Museum by his children Katy, Andrew and Lynda.

Stephen Hewitt



The Carlisle Naturalist

Editor: David Clarke

Editorial Panel: Roy Atkins, David Clarke, Stephen Hewitt, Jeremy Roberts

Layout & DTP: Jeremy Roberts; colour section: David Clarke

Artwork: David Clarke

Copy deadline for the next issue is: mid-March 2013

Information for Authors

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

Material should be clearly legible – if type-written, then double-spaced on one side of white A4 paper.

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

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

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

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

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

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Subscription Rates: Individual £10.00; Family £15.00; Junior/student £5.00; Affiliated £6.00 (affiliated members receive the *Carlisle Naturalist* only); visitors to meetings £3 (students £2) on the door.

Membership application forms can be downloaded from the website (below), or from the Secretary – contact details above. www.carlisenats.org.uk

Winter Programme 2012/13

(Tullie House, Wednesdays at 7.15 pm, except where stated)

3rd October: ‘The flora of Upper Teesdale’

An illustrated talk by Jeremy Roberts

17th October: ‘The Solway Wetlands Project’

An illustrated talk by Alex Sijpesteijn, Solway Wetlands Project Officer

27th October (Saturday): Field Meeting: Latrigg (fungus foray)

Leader: Paul Nichol. Meet road end behind Latrigg NY280254, 10.00 am.

31st October: Members’ Night

Contributions from the membership

3rd November (Saturday): workshop – identification of grassland fungi

Leader Paul Nichol. Meet Tullie House 10.00 am. Field trip in the afternoon. Lunch not provided. **Please book in advance with Tullie House Box Office** (01228 618700)

14th November: ‘Arctic Charr – the ecology and status in Cumbria of an Ice Age relict’

An illustrated talk by Dr Ian Winfield

28th November: ‘Wildlife in Hungary’

An illustrated talk by Roy Atkins

12th December: ‘Hadrian’s Wildlife’

An illustrated talk by John Miles

9th January: ‘Oban to Spitsbergen – an Arctic journey’

An illustrated talk by Angus Hogg (joint meeting with Cumbria Bird Club)

23rd January: ‘The natural history of the Grey Mare’s Tail’

An illustrated talk by Richard Clarkson NTS

6th February: ‘The North Pennines AONB and Global Geopark’

An illustrated talk by Dr. Elizabeth Pickett (Joint meeting with Cumberland Geological Society) (N.B. this meeting will start at 7.30 pm)

17th February (Sunday): Field Meeting. Loch Ken, Galloway (wild goose chase) Leader:

John Hamer. Depart Carlisle College 9.00 am.

20th February: ‘Madagascar Wildlife – a conservation documentary’

A presentation by Sian Hill and Jess Owen, Wildlife & Media students, Univ. of Cumbria

6th March: AGM & Members’ Night

AGM followed by contributions from the membership.