

Wildlife Reports: September 2017 – February 2018	1
Field Meeting report	
18 February 2018: ‘Wild Goose Chase’ in Dumfries & Galloway	6
Notes & Records	
A first December record of Dotterel (<i>Charadrius morinellus</i>) in Cumbria — <i>Nick Franklin</i>	7
Some interesting Cumbrian macro-moth finds in 2017 — <i>Martin Tordoff</i>	8
Recent reports of the tiger crane-fly <i>Nephrotoma crocata</i> (Linnaeus, 1758) in Cumbria — <i>Stephen Hewitt</i>	9
Mapping the lichen <i>Peltigera leucophlebia</i> in the Loo Gill catchment, Hartside — <i>David Clarke</i>	12
Articles	
An update on the status of the Netted Carpet Moth (<i>Eustroma reticulata</i>) in Cumbria — <i>John Hooson</i>	14
The liverwort <i>Anastrepta orcadensis</i> (Hook.) Schiffn. (Orkney Notchwort) in the Penrith Beacon woodland, with observations on the bryoflora — <i>Rod Corrner</i>	17
Lady’s Slipper Orchid (<i>Cypripedium calceolus</i> (L)) - its status in Cumbria — <i>Ian Brodie</i>	22
Scarf Stones, Derwent Water – place-name evidence for the historical occurrence of Cormorants inland in Cumbria — <i>Robin Sellers</i>	26
Cork Oak <i>Quercus suber</i> at St. Mary’s Church, Gosforth — <i>Robin Sellers</i>	28
Society News & Announcements	30

Lakeland Naturalist



— a journal of Cumbrian Natural History

Spring 2018



Lakeland Naturalist publishes material on all aspects of the natural history of the Lake District, the wider county of Cumbria and its immediate environs

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Notes for authors:

General articles, results of personal research, news items, records and items of relevance to Cumbrian natural history and naturalists, present and past, are welcomed. Material accepted for publication must not be submitted in a similar form to any other journal or magazine.

Material offered for publication should be in the formats used in this issue. Computer files should be in rich text format or Microsoft Word and e-mailed to the Editor, or submitted on CD/DVD accompanied by a paper copy. **Bold** and *italic* may be applied to text, but no other formatting should be applied. References should be given in full at the end of the article or note, and authors are responsible for their accuracy. Authority names for species, where given, should be in full. Line illustrations should be in black ink and must be originals. Good quality photographs are welcomed where these relate to submitted text. Each photograph, figure or table should be submitted as a separate file. Whilst every care will be taken of original artwork, the Editor can not be held responsible for any loss or damage. Authors of papers will be provided with PDF format copies on request. The Editor reserves the right to submit papers to a referee, and to reject items.

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Next issues: deadlines for final copy

1st September 2018 & 1st February 2019

Cover:

Common Frogs spawning at Dalston, 20 February 2018 © *David Hickson*

14th April (Saturday): The geology of the Eycott Hill area

Leaders: Sylvia and Peter Woodhead

Looking at the Volcanic and Limestone landscapes that make this a geological and wildlife hotspot. Meet at the CWT car park NY394 301 at 10.30am. Rough terrain, wellies (am), boots (pm) recommended.

29th April (Sunday): Caldew riverside walk from Caldbeck

General Natural History – spring flowers, insects, birds.

Leader: Russell Gomm

Meet at Caldbeck car park NY 323 398 at 10am.

10th June (Sunday): NNRs – Sandy Beck Meadow (Lorton Vale) and High Leys (Nr Rowrah just off A5086)

Plants and insects of MG5/8 Hay Meadows

Leader: Frank Mawby

Maximum 12 people – booking with Leader in advance required.

Meet at Sandy Beck Meadow at 10am at NY134 268

8th July (Sunday): West Silloth dunes and shore

Plants, Birds, Insects

Leaders: Dave Hickson and Dorothy Iveson

Meet at 10am at the car park on the south side of Silloth Docks at NY1052 5339

26th July (Thursday evening): Langholm Moor – fledging moorland birds

Leader: Guy Broome

Meet at 7pm McDiarmid Memorial car park, on the Langholm to Newcastleton Road at NY 382 856

17th August (Friday): Moth Night at Campfield Marsh (RSPB)

Leaders: Mike and Anne Abbs

Meet at 9pm at Campfield Marsh RSPB car park NY198 617.

8th September (Saturday): Grune Point: passage and post-breeding birds

Leaders: Mike and Anne Abbs

Meet at 10am Coast Road car park at NY1175 5517

19th September (Wednesday): Fossil Identification Workshop at Tullie House

2-5pm Leader: Simon Jackson. Short talks and practical sessions investigating the major fossil groups charting the geological story of Cumbria and the UK. Chance to see and handle Tullie house specimens. Hand lenses recommended. **Please book through box office 01228 618700. Spaces limited to 15.**



1...(p. 4) *Left: Twite. Grune Point, 27 December 2017; Right: Snow Bunting. Wolsty Banks, Beckfoot, 1 February 2018. © Nick Franklin*



3...(p. 8) *Least Carpet. Grange-over-Sands, 21 July 2017. © M. Chadwick*



2...(p. 7) *Dotterel, juvenile (centre foreground), amongst Golden Plover. Cardumock, 14 November 2017. © Nick Franklin*



4...(p. 8) *Cloaked Carpet. Braithwaite, 18 July 2017. © P. Macqueen*

5. (p. 10)

The tiger cranefly
Nephrotoma crocata

Eden Lacy,
5 June 2006

© Glyn Freeman



6. (p. 16)

Netted Carpet,
mature larva

Brantwood,
31 August 2017

© Guy Broome



7. (p. 17) The liverwort *Anastrepta orcadensis*. Penrith Beacon, March 2018. [INSET: c. 0.25 x natural size]

© David Clarke



8. (p. 12) The lichen *Peltigera leucophlebia*. Upland grassland at 450 m, Haresceugh Fell, March 2017. [INSET: enlarged detail]

© David Clarke

Wildlife Reports, September 2017 to February 2018

The following are based mainly on cards submitted by CNHS members. They have been forwarded to CBDC at Tullie House. Uncredited records are usually my own.

Weather

The autumn and winter continued generally wet. There were spells of snow-fall, especially on the higher ground but perhaps the most notable weather event of the year came in the last week of February, continuing into the first few days of March. A quite unprecedented fall of snow blanketed the whole county, being very severe east of Carlisle, driven on strong easterlies. The records of Drumburgh Weather Station briefly summarised are: September, unsettled with above average rainfall and rather cool; October: continuing unsettled and mild but 103 mm of rain was average; November: mostly settled apart from three very wet days from 20 to 22 and colder than average; December: average temperatures but with more air frosts than usual, quite settled other than two very wet days over Christmas; January: a rather unsettled month, average temperatures and rainfall but with several cold sleety/snowy days but no lying snow at sea level; February was the coldest since 2010 with severe cold and snow during the last week, leading into March – at minus 2.6° C, the daytime temperature on 28 February was the lowest ever recorded here.

Birds

30 **Whooper Swans** were at Blackdyke on 19 October (RH). The highest count (of 449) flighted off Moricambe Bay roost on morning of 19 November (CM). They were seen at many locations during the winter, probably influenced by disturbance and a shortage of grass. Early sightings of **Pink-Footed Goose** were the several skeins over Kirkbride on 15 September, apparently moving south. The autumn flock averaged around 11,000 and was a highest for many years; an estimated 20,000 were present in February. An estimated 2000 **Barnacle Geese** were at Cardurnock on 14 October (RA); some 7,000 to 8,000 were often present on the Moricambe Bay Marshes throughout the winter. **Gadwall** were regularly present at Watchtree throughout the winter. A large number of **Pintail** (> 500) was counted in poor visibility on the edge of Newton Marsh at high tide on the WEBS count of 8 October and backed up by an exceptional count of 1700 off Cardurnock on 14 October (RA). 52 **Shoveler** were at Longtown Ponds on 29 January (RA). A pair of **Mandarin Duck** were flushed off the Burthholme Beck, Lanercost on 10 December (MG). Once numerous in winter, **Scaup** are rarely seen in recent years: a single female was off Grune Point on 10 December (RD). Six male and four female **Goldeneye** were on the River Eden

downstream of Rockcliffe on 6 February (LC). An unusual record of **Goosander** relates to twelve males and seven females feeding on bread in Upperby Park on 27 December (RW). **Grey Partridge** were recorded by RH, a covey of nine at Cargo on 28 November; SH saw 4-6 at Maiden Hill, Penrith on 7 February; RG saw a single bird at Burgh-by-Sands 13 February and I had regular sightings at Watchtree Nature Reserve. The **Little Egret** is now a common bird on the Solway: I counted 30 on the Old Harbour, Port Carlisle on a high tide roost in September. Inland sightings were Dalston (DH) and Sunbiggin Tarn (BR) on 7 January; 1 was flying along the River Eden at Lazonby 24 January (SH) and two by Castletown House on 6 February (LC). A **Great White Egret** was seen by BR feeding in marshy fields at Tarn Sike on 1 January.

A **Red Kite** was seen at Park Broom on 3 October flying north (RH). **Marsh Harrier** records were of a first-year male on Wedholme Flow from 6 September to 8 October (RH & FJM), and on 2 November one was seen along the old railway line on Bowness Common. **Hen Harrier** produced just one record – a female on Wet Sleddale 17 to 28 November (TW). A **Goshawk** was being mobbed by Ravens at Jockey Shield on 12 November (JM). Surprisingly, there was only one card for **Merlin** – a male and a female at Grune on 25 October (JM). It is worth noting that **Peregrines** are not often reported, the only card came from RH, 3 December at Grune. My appeal for **Kestrel** sightings has brought enough records to show it is still quite widespread.

Four **Avocets** were near the old railway viaduct west of Bowness on 20 September (RH), and at Port Carlisle on 24 September when NF determined them as an adult with three juveniles. Another notable find by NF on 29 October was a **Dotterel** with the estimated 3000 **Golden Plover** at the Anthorn Masts site. It was recorded several times up to 5 December (see Note on p. 7). A **Curlew Sandpiper** and a **Little Stint** were seen by NF from the layby opposite the Glendale Caravan site entrance on 24 September and reported regularly thereafter through the autumn and winter. A **Green Sandpiper** was on Burgh Marsh pool at Boustead Hill turn 30 October (RA) and thereafter there were four other records, with latest from DJ by Border Esk, Longtown on 7 February. There was a notable number of **Redshank** at Port Carlisle from early autumn onwards, roosting on the old harbour at high tide. On 22 October I estimated 2000 plus. There were four **Greenshank** at Grune on 25 October (JM). Good numbers of **Ruff** were present during the autumn. DJ saw two at Anthorn with Golden Plover and 11 on flood water at Whitrigg on 12 October. I counted eight around a flood pool in grass field at Longlands Head west of Kirkbride Airfield on 25 November. A **Pectoral Sandpiper** was seen on Wedholme Flow by RH on 6 September. **Jack Snipe**

are probably under-recorded due to their tendency to sit tight and flushing underfoot. Wedholme Flow (RH & FJM) Watchtree and Thornhill Meadows are regular autumn sites. An **Iceland Gull** was found amongst a mixed gull flock at Lanercost on 25 February (MG), and a **Mediterranean Gull** was present at Bowness on 19 October (DJ).

Three **Long-eared Owls** were seen at night along woodland edge on Shap Fell on 18 September (TW). TW also reported a group of 10 **Short-eared Owls** and another of 12 at locations on Shap Fell on 26 September following a very good breeding season during a very good vole year. Geltsdale RSPB also reported an exceptional breeding season. There were very few sightings of **Barn Owl** during the autumn but the snow and cold of the last week of February into March saw several hunting during the day as the snow melted.

Kingfisher records came from Kirkandrews on Esk on 12 December (DJ), and the Esk at Longtown on 7 February. DC noted 1 on the R. Caldew at Cummersdale on 13 October. A late **Swallow** was at Burgh-by-Sands on 26 October (RH). At least 20 **House Martins** were wheeling around our house and visiting nests. My last sighting was on 18 September although RH had 20 passing over Lanercost on 6 October. A **Wheatear** at Grune Point on 25 October was a late migrant (JM). A **Black Redstart** was at Dubmill Point on 9 December (KH). Winter thrushes brought numerous reports: 12 **Redwing** were at Bowness Gravel Pits on 12 October (DJ); RH noted 19 **Fieldfares** flying over Carlisle on 19 October; there were three **Mistle Thrushes** at Grune on 25 October (JM) and 23 on 1 November (RH). Large flocks of thrushes were present most of winter many coming into gardens during the 'beast from the east' cold spell at the end of February.

A late **Willow Warbler** was noted at Watchtree on 27 September (LS). A **Chiffchaff** on 9 November seen by AM at Howgill with a flock of **Long-tailed Tits** was either a late bird or perhaps one overwintering. Only a single **Yellow-browed Warbler** was seen, on 18 October downstream of Abbey Bridge, Lanercost (MG). **Willow Tit** records are scarce but a project to colour-ring a few produced two on the north side of Glasson Moss and two at Bowness Gravel Pits CWT Reserve in February, with regular sightings since. **Marsh Tit** is also rare. AM photographed two at bird-feeders in a garden at Barns near Kirkcambbeck on 5 January. A **Hooded Crow** was seen by JR perched in tree by roadside at Hensingham on 3 February. There have been other records of this species in the area, with indications that it may be a hybrid. **Starling** murmurations were reported from near Calvo (RH) – c. 5000 birds – on 2 November and at Easton where c. 20000 were going into reeds round a small pond on

3 December (SG). Later in the year the largest brought to my attention was near Sunbiggin Tarn. **Tree Sparrows** are interesting, being very common and numerous in some gardens and a rare notable occurrence in others. Up to 50 are present most days in my garden and 100 or more at Watchtree. The largest flock of **Brambling** seen was c. 50 near the Gilwilly Estate, Penrith by AR on 29 November; other records were of singles at garden feeders. A flock of c. 200 **Goldfinches** was at Grune on 18 September (RH) and similar numbers were at Watchtree during September. Large flocks of **Linnets** can usually be found on the wild-bird food crops. I saw notable numbers at Rogersceugh (DB said a maximum of 500 had been present) and Red Hall Farm during the autumn. **Greenfinch** are becoming steadily scarcer and not often reported; up to 14 visit our feeders and a few come to Watchtree feeders. **Yellowhammer** is another bird of some concern and one that can also be found at the wild-bird food crops: up to 18 were at Watchtree feeders in February and >30 at Red Hall Farm. I estimated a flock of **Twite** feeding on Calvo/Border Marshes on 19 November to number 250 birds. I also had a flock of 100 at Cardurnock 'masts' on 30 November. All other records were from Grune from December through to February, e.g. 10 December c. 70 (RD), 8 January c. 100 (RH), 28 February c. 28 (VR). NF photographed one there on 27 December (Plate 1). A single **Hawfinch** was at Longtown sewage works on 28 November (JM). In the UK as a whole there was a notable influx of birds from Europe in October. JM had a single **Crossbill** at Jockey Shield on 24 January, and on 4 February in Spadeadam Forest R&KH saw a singing male with mate carrying nest material and another three males and female feeding on conifers. The RSPB group encountered four **Snow Buntings** at Grune Point on 10 December (RD) and VR saw five on 12 December. SGr found three at Wolsty on 31 January and NF photographed one there the next day (Plate 1).

Other groups

The first mating activity of **Common Frogs** was noted at Garden House Nursery, Dalston on 17 February (DH), with spawn on 20Feb and large numbers of individuals present. DS had spawn a day earlier at Prospect and SH had spawn in his Penrith garden on 20 February. All this was before the severe weather of late February brought such activity to a halt.

Whilst cleaning out nest-boxes, I found three **Brown Long-eared Bats** in a box on Pow Wood, Watchtree on 15 September, and 6 in Finglandrigg Wood NNR on 28 September. A **Pipistrelle** (species unknown) was flying in early evening on 9 November at Jockey Shield (JM). Another nest-box find on 28 September was a

Pygmy Shrew – again at Finglandrigg Wood. More remarkable was one reported to RG as scurrying about on snow on High Cup Nick on 20 November. A **Water Shrew** was caught in a mouse trap at Gosforth on 11 December (RSel). A single **Red Deer** was seen at Port Carlisle on 17 September (RA). There have been reports, as yet unsubstantiated, of **Muntjac Deer** around the Solway this winter.

Late dragonfly and butterfly records were of **Common** and **Black Darters** on the Solway Mosses on 27 October (R&SG, FJM). A **Southern Hawker** was noted by RS ovipositing in his garden pond at Broadwath on 23 September, and DC had a **Common Hawker** in his Cumwhitton garden a few days earlier. A **Small Tortoiseshell** was on flowers at Burgh-by-Sands allotments on 29 October (RG). **Peacocks** were noted in the Bee Garden at Skinburness on 4 November (VR), and out in warm sunshine on 26 January on Skinburness sea front (D&AS). Late **Comma** sightings included Wetheral on 28 October (RJ) and even later at Dalston on 5 November (DH). **Speckled Wood** was seen at Watchtree on 27 September (LS) and in Clifton Wood 14 October (BR). DC noted it up to 17 October at Cumwhitton. November records of **Red Admiral** on 2nd were at Swindale (LSch) and Carlisle (RH). VR reported it from Skinburness on 5th. A late **Painted Lady** was seen by VR at Skinburness on 18 October. GB noted a **Small Copper** near Cumrew on 2 September.

Recorders

RA: Roy Armstrong, DB: Dave Blackledge, GB: Guy Broome, LC: Lindsay Cowen, DC: David Clarke, RD: Richard Dixon, MG: Mike Gardner, RG: Russell Gomm, SG: Sara Gomm, SGr: Sam Griffin, KH: Keith Hamilton, SH: Steve Hewitt, DH: David Hickson, RH: Robin Hodgson, R&KH Robin and Karen Hodgson, DJ: David Johnston, RJ: Robert Jones, CM: Chris Mawby, FJM: Frank Mawby, JM: John Miles, AM: Adam Moan, JR: John Read. BR: Brian Redhead, AR: Ann Robinson, VR: Vivian Russell, DS: Donna Salter, RSel: Robin Sellers, LSch: Lee Schofield, RS: Rob Shaw, D&AS: David and Ann Singleton, LS: Liz Still, TW: Tony Williams, RW: Robert Wright. Tony Matthews at Drumburgh kindly supplied weather records.

Field Meeting

18th February – 'Wild Goose Chase' in Dumfries & Galloway

Leader: Frank Mawby

A group of eight members including three University students met in Carlisle for a day of bird-watching in D & G. The weather was mild and for the most part dry.

Just before arriving at our first stop on the coast at Newbiebarns we saw a group of Whooper Swans and 15 Pinkfeet in a field adjacent to the road while Adam pointed out Reed Bunting in the hedge. Once at the shore, with the tide well out, we saw waders and ducks including Redshank, Dunlin, Curlew and Pintail.

On the way to Cummertrees we passed a large group of Barnacle Geese, and nearby Golden Plover, Lapwing and Oystercatchers. We watched as a big flock of Pinkfeet flew in to join them. Heading towards Ruthwell we had views of a male Hen Harrier and in a farmyard on the edge of the village we saw a Hare. Arriving at Caerlaverock NNR car park we walked through the wood and scrub taking the path to the hide. Along the coast here we saw several Little Egret out on the marsh.

The lunch stop was in Glencaple where we had excellent views of Rock Pipit and a Rat that seemed to have a series of tunnel entrances along the marsh edge.

Moving on to Threave, we walked to the two hides in the wood overlooking the marsh. The water levels were very high and there was little to be seen. We had been expecting to see Greenland White-fronts here according to a source of Frank's... but no luck. So, we headed off for Loch Ken where we found up to a hundred Greenland White-fronts. It was hard to judge exact numbers as they took off just as we arrived, many landing over a ridge out of sight!

Before heading home we made a stop at Laurieston where there were numerous Red Kites still to be seen even though the feeding at the feeding station had already finished.

In total we saw 62 species of bird. A full list can be found on the website – an excellent day out.

Marie Saag

First December record of Dotterel (*Charadrius morinellus*) in Cumbria

On 29 October 2017 I was driving past the sharp corner on the road between Campfield and Cardurnock when I noticed a flock of Golden Plover in an adjacent field. I pulled over and started scanning through them and soon noticed a smaller bird, asleep. It had a prominent white eye-stripe and was an overall pale, sandy colour, and initially I considered it could be an American Golden Plover. Once it woke and started moving around it was obvious that instead it was a juvenile Dotterel, not as rare a bird but still very scarce away from the higher fells. It was hard to see in the long grass, but after I put the news out and a couple of other birders had arrived, the flock flew over the road and landed in a field with much shorter grass. This allowed much better views and some rather distant photos to be taken (Plate 2).

Over the following month the Dotterel continued to associate with the large Golden Plover flock that uses the fields around Anthorn masts in winter. It could be very hard to find at times, as the flock often fragmented, with birds being out of sight in dips in the fields, or simply too far away behind the masts to be scanned effectively, but eventually most people caught up with it. It was last reported on 5th December, making it the latest county record and the only Dotterel to be seen in Cumbria in December. Given the difficulties of finding it in the large flock it could have been present for much longer. Its origins can only be guessed at: John Callion has confirmed that the bird was in first-winter plumage and points out that its European range overlaps considerably with that of Golden Plovers, with the possibility that the two species may sometimes travel together; he also mentions that Robbie Brown (in his book *Lakeland Birdlife 1920–1970*) lists three Golden Plover chicks that he had ringed on the Skiddaw Fells as wintering on the Cumbrian coast, so perhaps even a Cumbrian origin for the Dotterel cannot be ruled out – though there are no 2017 reports of breeding here.

Interestingly, several years ago (8 November 2010), I found a juvenile Dotterel in a Golden Plover flock on the Gretna access road, just inside the northern boundary of Cumbria. This bird was also hard to identify in long grass and at a distance, but eventually photos revealed its identity. Unfortunately, the flock moved away after 11 November, so how long this bird stayed could not be determined.

I am unsure as to how common the phenomenon is of Dotterel joining Golden Plover flocks in the UK. Anecdotal evidence would suggest this is a fairly recent development that has only been reported since the mid-2000s – for example, one bird was present between 1st and 9th December 2015, in a flock of several thousand Golden Plover on Ouse Fen, Cambridgeshire.

Nick Franklin, 19 Eden Street, Carlisle CA3 9LS

Some interesting Cumbrian macro-moth finds in 2017

At the time of writing, most of the 2017 Cumbria moth records are yet to be collated and verified, but there is interesting news regarding four macro-moth species, three of which were new to the county in 2017, the other a rediscovery after an absence of almost four decades.

In the previous edition of this journal Robert Pickett gave an account of his find of a Northern Arches Moth (*Apamea exulis*) in his Brampton (NY5361) garden trap on 8 July 2017 (Pickett, 2017), where it was noted that the only previous English records of the species were four from the same site in Kielder Forest (VC67) from 1992 to 2016. This was followed on 18 July 2017 by Peter Macqueen's Cloaked Carpet (*Euphyia biangulata*) in a garden trap in Braithwaite, VC70 (NY2324) – Plate 4. This species, with its larval foodplant of stitchworts (*Stellaria* spp.), has a mainly southerly distribution but with several records from Wales and the Isle of Man; the current record is the northernmost verified from the British Isles with the exception of a single 1998 record from Kirkcudbrightshire. Finally, on 21 July, Martin Chadwick found a Least Carpet (*Idaea rusticata*) in his garden trap at Grange-over-Sands, VC69 (SD3976) – Plate 3. A Traveller's-joy (*Clematis vitalba*) feeder in its larval form, Least Carpet appears to be expanding northwards from its predominantly south-eastern range, and the present record may prove to be the most northerly yet. In a presentation a few years ago Teresa Frost, former manager of CBDC, noted that '... moths are being recorded new to Cumbria at a rate of around five micros per year and one new macro every couple of years ...'. So, we have bucked the trend here, with three new macros in a single year, indeed in a single fortnight, and thanks and congratulations are due to the recorders concerned. Sadly, all three records will fail to make it to the distribution maps in the forthcoming atlas of macro moths, due for publication later in 2018, having occurred after the December 2016 deadline for record submissions.

The other item of good news is the rediscovery of Northern Dart (*Xestia alpicola*) at its best-known Cumbrian site, the Rothamsted Survey insect trap at Moor House NNR VC69 (NY73) caught some time in the seven nights to 2 August 2017. The species, not normally recorded below c. 450 metres above sea level, is unusual in having a synchronised emergence in alternate years, and from Moor House there are around a dozen records, all from odd-numbered years and with the hitherto most recent as far back as 1979. That this recent rediscovery has also occurred in an odd-numbered year may be purely coincidental but equally may suggest that the two-year emergence cycle has continued unbroken over this long intervening period. The single 2017

specimen at Moor House NNR was not retained or photographed since its presence at the time was probably not unexpected, identification having been conducted by Rothamsted's lead Lepidopterist Adrian Riley. Intensive searches for the species have been conducted around the Moor House Rothamsted trap site in two recent odd-numbered years, led by Gary Hedges on 6 August 2013 and Dave Grundy on 2 July 2017, and I was privileged to join in both of these. On each occasion around 15 traps were run within 1 km or so of the Rothamsted trap but without finding the target species. In 2013 the night was very cold, down to -2°C, and very windy but milder in 2017. Moth catches on both occasions were sparse: at my traps only 12 species were recorded over the two events, including such upland stalwarts as Red Carpet, Grey Mountain Carpet, Antler Moth and True Lover's Knot. It would be good to remount our search for the adult moth in 2019, though with the scarcity of records it is difficult to predict the peak date of flight, and for any event planned more than a few days in advance the weather obviously becomes a factor too. Meanwhile, larval searches in 2018 or early 2019 could be productive, with searches in any upland area with an abundance of the species' listed food plants, Cowberry, heathers, Bilberry, Crowberry and Bearberry. It is worth noting in passing that Northern Dart normally flies in even-numbered years across its much wider Scottish range. This was confirmed in July 2014, when in a targeted search for the species in the Tweedsmuir Hills, only 50 km or so from the Cumbria border, no fewer than 64 specimens were recorded at four traps.

Finally, I must thank Gary Hedges and Liz Still for their helpful reading and comments on the above article though responsibility for its accuracy must remain my own.

References

Pickett, R. (2017) Northern Arches Moth (*Apamea exulis*) in Brampton, new to Cumbria. *Lakeland Naturalist*, **5** (2): 55.

Martin Tordoff, 1 Fletcher Drive, Kendal LA9 7DL

Recent reports of the tiger crane fly *Nephrotoma crocata* (Linnaeus, 1758) in Cumbria

In spring 2017, whilst searching for stiletto fly larvae in flood-deposited sand on the banks of the River Eden in Cumbria I also collected other Dipteran larvae encountered. All larvae were reared individually in plastic pots containing a little sand and emergent adults were identified. In one sample on 26 April from the river near Lazony (NY565391) a single crane fly larva was collected from a 1 m² quadrat of

thinly vegetated sand, partially shaded by riparian trees. The quadrat was on a bank of loose sand on the field margin at the top of the riverbank 3 m above river level and 10 m from the water's edge. This bank of sand had been bulldozed off the field after it was inundated in the flooding caused by Storm Desmond in December 2015. The larva later pupated and, in due course, an adult male of *Nephrotoma crocata* emerged.

Falk (1991) lists *N. crocata* as nationally Rare, with records widely dispersed in England, extending thinly into Wales and up to Midlothian in Scotland. He notes a marked decline in observations of the species, which in the past was quite frequent in southern counties and parts of northern England, particularly Yorkshire and Surrey.

This pattern of decline is also apparent in the Cumbrian data, where a number of early 20th century records made by members of Carlisle Natural History Society (CNHS) are recorded in the manuscript list of Cumbrian Diptera compiled by F.H. Day (Day 1950) – Tarn Lodge [NY55H], Cowran Cut [NY5156] (G.B. Routledge); Orton [NY35H] 10 June 1900, Gelt Wood [NY5258] (F.H. Day). These records are supported and enhanced by voucher specimens of *N. crocata* held in Tullie House Museum: Tarn Lodge [NY55H] 1896 and 17 June 1916, Cowran [NY5156] 19 June 1916 (G.B. Routledge Collection); Orton [NY35H] 10 June 1900 and 6 June 1942 (F.H. Day Collection). The Crane-fly Recording Scheme (NBN 2017) has a record by [W.E.] China for Windermere [SD4198] in June 1947 (NBN 2017). Despite the presence of active dipterists such as Neville Birkett and John Parker in the county and determined effort on recording crane-flies over the last 20 years, there were no further records of *N. crocata* in Cumbria for over 60 years, until a female was photographed by Glyn Freeman ovipositing in sand by the River Eden at Eden Lacy NY564390 on 5 June 2006. The photograph was sent to John Parker and myself for identification. Coincidentally, another female was found very close by at Force Mill, Eden Lacy NY562380 on 7 June 2016 by Mike Clemenston and brought to a meeting of Carlisle Natural History Society for identification.

Falk (1991) states that the species' habitat requirements are unclear, but that heathy woods and fen woodland seem to be favoured. He also reports that the larva has been found in damp soil. Cuthbertson (1929) states that *N. crocata* larvae have been recorded from wood. The historical Cumbrian data support these observations with the locality 'Orton' generally used to refer to Orton Moss, a lowland mire which in the early 20th century was covered in heathy woodland. Similarly, Tarn Lodge, the former home of G.B. Routledge, stands adjacent to Hayton Moss (Plate 5).

It is remarkable then that all three recent Cumbrian records of *N. crocata* come independently from the same stretch of river and that these are all associated with

sandy riverine sediment. A further correlation may or may not be significant; The River Eden has suffered two major flood events in the last 50 years, both of which resulted in serious flooding in Carlisle. These flood events occurred in January 2005 and December 2015 and resulted in large amounts of sand being dumped high on the riverbanks at various locations along the river. It could be that these floods caused a dramatic increase in available larval habitat resulting in an increase in the Eden Lacy population to observable levels. Another possibility is that the crane-fly survives locally at a nearby location and has colonised the sand deposits on the river created by these flood events. There are however no obvious wet heathy woods or fens in the immediate vicinity.

Although these recent Cumbrian records are all associated with riverine sand deposits, the species is clearly not restricted to this habitat. A recent thread on the Dipterists Forum website (Dipterists Forum, 2017) reports several observations of *N. crocata* in sandy quarries in Lincolnshire, Shropshire and Nottinghamshire. Falk (1991) judges the species to be threatened by habitat loss to agriculture and intensive forestry; scrub invasion on heaths; drainage of any damp areas. He suggests that conservation management might include maintaining a full range of conditions including a high, relatively stable water level in any marshy areas and preventing scrub invasion on heathland and in rides and clearings of woods. To these considerations might be added the maintenance of natural flow regimes on rivers together with conservation of riparian habitat and exposed riverine sediments.

Other crane-flies that John Parker and I have reared from larvae collected in sand deposits on riverbanks and in-channel shoals include, *Nephrotoma analis*, *N. appendiculata*, *N. lunulicornis*, *N. submaculosa*, *Tipula couckeii*, *T. lateralis*, *T. maxima* and *T. montium*. Some of these are considered specialists of exposed riverine sediments whilst other are more generalist species.

I thank Simon Jackson at Tullie House Museum, Carlisle for access to the collections there.

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Mapping the lichen *Peltigera leucophlebia* in the Loo Gill catchment, Hartside

Having recorded this fairly localised species in some detail during frequent visits to this area, mainly in the past three years, it has seemed worthwhile to present the outcome in mapped form. All colonies more than 10 metres distant from the nearest neighbour were recorded – over 40 colonies in all and there are very likely to be others (Figure 1). Altitudes varied from 300m to at least 460m. The distribution coincides well with the geology of the area, with all records clearly associated with the occurrence of limestones of the Carboniferous series – or intrusions of dolerite into this. However, associated species of ‘higher plants’ are rarely true calcicoles, so it is clear that the lichen tolerates a range of base status, sometimes maintained by flushing, though never, apparently, in really acidic situations. The lichen itself is usually bound by its rhizinae to widespread upland mosses and liverworts and adjacent plants. The latter include *Thymus polytrichus*, which is usually closely intermingled in these patches. I have noticed this ‘association’ with the flowering plant very commonly elsewhere. It has unknown significance. Possibly it could possibly be linked to deterrence of grazers such as slugs and snails – which rarely cause damage. (*Thymus* itself requires relatively open habitats, or sites kept open by grazing, which may be an important factor in the distribution of the lichen.) The sites in Loo Gill area have tended to be either on mossy rock outcrops (or turf ledges above these), or in short mossy turf, into which the lichen is well integrated. Sheep and rabbits frequent the area and often disturb colonies; bracken encroachment may be an issue in grassland situations. An exceptionally large single spread (arrowed in Figure 1; photo Plate 8) which covered at least 4m² was in gently sloping grassland with rock near the surface at altitude of 450 m. In the valley, the lower part of Ricker Gill has a succession of patches on low rocks on banks above the stream. Long-abandoned limestone quarries of various sizes, sometimes with limekilns, are a feature hereabouts and often become ‘sheep shelters’: their outcrops and floors rarely hold the lichen. Most of the locations I noted are well-exposed to full daylight (and strong winds). As a cyanolichen that also has a green algal symbiont, the species may be better adapted to survive in unshaded positions than other relatives in the genus, which tend to occur more frequently in shaded situations,

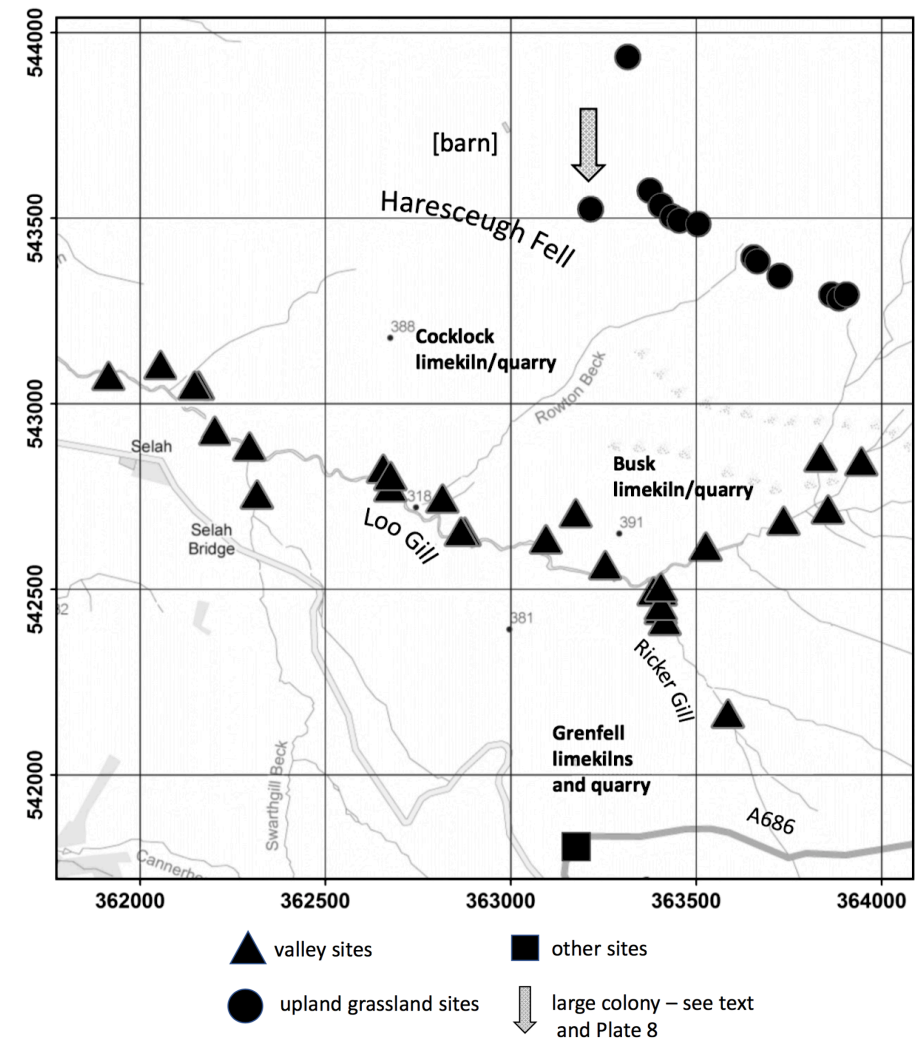


Figure 1. *Peltigera leucophlebia* in Loo Gill

(Contains Ordnance Survey data: Crown copyright and database rights, 2018)

and often not on obviously base-rich substrates. I am grateful to Cumbria Biodiversity Data Centre for help with production of the map.

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An update on the status of the Netted Carpet Moth (*Eustroma reticulata*) in Cumbria

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My previous article on the status of this species was written almost eleven years ago (Hooson, 2007). This described the historical discovery of Netted Carpet Moth in the UK from near Windermere; the life-cycle of the species and its exclusive dependence on Touch-me-not Balsam (*Impatiens noli-tangere*), and the extensive conservation efforts since 1990 to halt and reverse the decline of this Red Data Book species. The present article is an update cataloguing significant changes in status and knowledge over the last ten seasons.

Annual larval monitoring efforts have now continued uninterrupted at the Coniston Water and Derwent Water locations since 1993. Here I would like to acknowledge the magnificent support received from numerous volunteer surveyors over those years; it would have been impossible to obtain the amazing set of moth larvae/foodplant data without them all.

The moth conservation success story has continued since 2007. It has been brought about primarily by controlled winter cattle-trampling to create bare ground for balsam to germinate in. At the Coniston Water sites, the number of balsam foodplant remains in the tens of thousands and larval numbers have risen in line with foodplant abundance. As reported previously the two main cattle-trampled woods supported 68,000 plants and an estimated 925 larvae in 2007; these figures were 124,000 and 1290 in 2016. As a reminder, when we started this work balsam plants in those same woods were counted in the hundreds and the moth population rarely made double figures! A consequence of the success is that the monitoring methodology has had to be modified for the huge Coniston Water sites in order to make it achievable with the human resource available.

What the data reveal is that ground disturbance is critical to maintaining and increasing the stands of Touch-me-not Balsam, and that this is best achieved by heavy hooves. Where this management intervention takes place the overall balsam population remains secure. However, the balsam stands do not necessarily stay in the same place. Over a period of a few years stands can be observed to expand, contract, disappear entirely, or pop up in new and unexpected locations. The variation is



Netted Carpet Moth larva on its food-plant, Touch-me-not Balsam (John Hooson)

primarily due to the cattle, their behaviour and where they choose to wander – creating the right germination conditions and carrying the seed with them on muddy hocks. Weather factors, especially mild winters, and the relative growth rate of competitive perennial vegetation also have an impact, as do grazing deer. In 2011 the majority of balsam plants in one wood were grazed to stalks by a probable resident roe deer and any eggs or larvae are likely to have been eaten too! Fortunately, the colony recovered the following year. Despite these other variables, winter cattle are key to maintaining large balsam stands but they will naturally move – dynamism is a key part of the story. A notable movement was observed in 2014 when a new balsam stand was recorded with larvae utilising it. This revealed that the moth had dispersed over 1km to found this new colony.

I reported in 2007 that an attempt to re-introduce Netted Carpet Moth to Derwentwater in 2006 had not been successful. However, the flourishing Coniston

populations gave us confidence to try again, with more individual larvae being carefully translocated over a number of years and to sites on both sides of the lake. Second time round, and the effort was rewarded with the moth quickly becoming established where released and expanding unaided to nearby balsam stands.

Finally, and perhaps most surprising, the moth has been discovered in north Lancashire, undermining a little the proud epithet we have used: 'a Lakeland Speciality'. The Lancashire balsam sites, near Warton, had been surveyed for larvae in the past but none were found and, given the distance from known moth populations, this had not been repeated. In autumn 2009, perhaps enthused by the increased profile of the Lake District populations, a group of Lancashire Butterfly Conservation volunteers again made a casual inspection of the balsam plants. They were astonished and delighted to find Netted Carpet larvae, and more larvae were later found to occur on a few other balsam stands in the locality.

Any reports of Touch-me-not Balsam sites or of Netted Carpet adults or larvae* would be welcomed by the author. Tel. 015394 6381 Mob. 07825 450527; john.hooson@nationaltrust.org.uk

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*[The adult moth and its food plant are well illustrated on the cover of *Lakeland Naturalist* 5 (2) (2017), associated with a note by Guy Broome. One of Guy's photos of a well-grown larva is shown on Plate 6 of the current issue. Ed.]

***Anastrepta orcadensis* (Orkney Notchwort) in the Penrith Beacon woodland with observations on the bryoflora**

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The Penrith Beacon woodland is situated on the acid Permian Sandstone formation and lies between 195 m and 286 m in altitude above the north side of Penrith and only 1.2 km from town centre. The highest point is crowned by the historic Beacon tower (Pike) from which extensive views are obtained. A well-drained sandy soil overlies the rock with peat in the wetter hollows. Quarrying has been extensively carried out in the past with small deep pits. The largest quarries occur on the steep south-facing side but are too shaded and covered with larch needle-drop to support a good bryophyte habitat. The smaller quarries under birch and oak around the Pike itself have the greatest variety of species. According to Lowther Estates, who own the forest, the Beacon Hill was bare moorland until planted with Scots pine in the 1800s and in 1917 the first crop of trees was felled for the First World War and replanted in the 1920s.

In February 2003 while examining a patch of wet heath at the north-west extremity of the woodland I was surprised and delighted to find a small population of the leafy liverwort *Anastrepta orcadensis* (Orkney Notchwort) at NY52599.31986, altitude 245 m. I recognised it from the fells of the Lake District and Pennines but did not expect to find it in such a habitat in the Eden Valley. This small area of wet heath is threatened by regenerating Sitka Spruce (Figure 1) and having contacted Lowther Forestry, the forest owners, they agreed to remove a small tree which was shading the liverwort. This intervention was unsuccessful and the colony was gradually swamped by other bryophytes colonising the peaty surface and by needle-drop from the nearby trees – in four years it had gone. However, another small group of stems on the side of a *Calluna* hummock was found a few metres away and is still present (Plate 7), although a smaller one on bare-ish peat in the same area became extinct from disturbance by deer or badgers. During the next few years, four other sites for *Anastrepta* were found in the pine woodland of the Beacon Forest, all within monad NT52.31. Three discrete colonies occurred in the central area of the forest and in 2010 a fourth was noted to the west of most easterly of the telecommunication masts where young stems showed that active regeneration was taking place. Gemmae were frequent on the leaves there.

When searching for *Anastrepta*, the presence of the conspicuous white reindeer-

moss lichens *Cladonia portentosa* with the occasional *C. arbuscula* and *C. tenuis* were good indicators of the likely habitat – perhaps as a sign of least habitat disturbance. Close associates under the open or stunted *Pinus sylvestris* (Scots pine) included *Calluna vulgaris*, *Vaccinium myrtillus*, the mosses *Dicranum scoparium*, *Hypnum jutlandicum*, *Pleurozium schreberi*, *Rhytidiadelphus loreus*, *Sphagnum capillifolium*, *S. subnitens*, *S. tenellum* and the liverworts *Barbilophozia floerkei*, *Lophocolea bidentata*, *Lophozia ventricosa* and *Ptilidium ciliare*. After the initial discovery of *Anastrepta*, a few stems of *Bazzania trilobata* and *Scapania gracilis* were seen at the edge of the same area of wet heath. They have not been seen there again and are taken to be extinct there, although a few stems of the latter are still present at the edge of a ditch several hundred metres to the east. These species and the well-developed hummocks of *Sphagnum quinquefarium* point to the western element of the bryoflora here.

Anastrepta is a locally common plant in the ‘northern hepatic mat’, a mixture of large leafy liverworts on heathery slopes of the Scottish Highlands (Atherton, *et al.*, 2010). It is classified as a sub-Atlantic species usually associated with bryophyte mats in vegetation above the forest zone (Ratcliffe, 1968; Rodwell *et al.*, 1991). The Beacon pine woodland has affinities with National Vegetation Classification community **W18** *Pinus sylvestris*–*Hylocomium splendens* woodland, and the sub-communities *Sphagnum capillifolium*/*S. quinquefarium*–*Erica tetralix* and *Scapania gracilis*. *Anastrepta* occasionally appears in the latter (Rodwell *et al.*, 1991; Averis *et al.*, 2004). The central area of woodland, with the heather and bilberry understory, certainly has the feel of a Scottish Highland pinewood, and I would consider this part of the forest to be a southern outlier, albeit of planted origin, belonging to the above communities. Indeed, Ratcliffe (2002) assigns some pine woods to this community when discussing the distribution of the orchid *Goodyera repens* (Creeping Lady’s-tresses) in Cumbria. The pine area contrasts with the sections of the dark alien woodland of Sitka spruce planted elsewhere in the forest.

It is of interest that Hill *et al.*, (2007), give a precipitation value of 2036 mm (80 inches) of annual rainfall for *Anastrepta*, whereas according to rainfall figures the Beacon sites have only *c.* 880 mm, i.e. only 43% of the former figure. The sheltered moist micro-habitats must allow it to survive where the annual precipitation is considerably lower.

Other bryophyte species localised to the wet heath of the forest were the mosses *Aulacomnium palustre*, *Leucobryum glaucum*, *Polytrichum strictum*, *Sphagnum compactum*, *S. fallax*, *S. fimbriatum*, *S. girgensohnii*, *S. palustre*, *S. russowii* and the

liverworts *Calypogeia fissa*, *C. muelleriana*, *Gymnocolea inflata*, *Mylia anomala* and *Odontoschisma sphagni*.

Among the woodland species were *Atrichum undulatum*, *Dicranum majus*, *Hylocomium splendens*, *Lepidozia reptans*, *Polytrichum commune*, *Polytrichastrum formosum*, *Pseudoscleropodium purum*, *Rhytidiadelphus squarrosus*, *R. triquetrum* and *Thuidium tamariscinum* with *Pseudotaxiphyllum elegans* in the shaded quarries at the east end. Species seen on rotten wood were *Cephalozia bicuspidata*, *C. connivens*, *C. lunulifolia*, *Chiloscyphus pallescens*, *Lophozia incisa* and *Lophocolea heterophylla*.

Beech had been planted along the sides of tracks and the smooth bark supported the following liverworts: *Frullania dilatata*, *Metzgeria furcata*, *M. violacea* (also as sheets on Sitka spruce trunks), *Microlejeunea ulicina* and *Radula complanata*, with the mosses *Cryphaea heteromalla*, *Orthotrichum affine*, *O. stramineum*, *O. diaphanum*, *Syntrichia papillosa* and *Zygodon viridissimus* in small quantity. *Hypnum andoi*, *Ulota crispa* agg. and *U. phyllantha* were on oak.

The following bryophytes of dry stone walls, although rare, were representative of the upland nature of the habitat: *Racomitrium fasciculare*, *R. heterostichum* and *R. lanuginosum*. *Andreaea rupestris* occurred as a single small cushion along the northern edge in 2008. *Dicranoweisia cirrata* and *Pohlia nutans* were along the wall at the golf-course edge with the abundant introduced *Campylopus introflexus*.

The sandstone below the Pike supported *Aulacomnium androgynum*, *Orthodontium lineare*, *Tetraphis pellucida*, and the thallose liverwort *Pellia epiphylla*.

Pleurozium schreberi is rarely found in fruit so it was a surprise to find capsules in several years running on a very sheltered north-east facing ledge of an old quarry. They are occasional in North Wales and northern Scotland but very rare elsewhere (Smith, 2004). This was also the only site where *Rhytidiadelphus loreus* was seen to produce capsules, as did *Plagiothecium undulatum*. Although *Hypnum jutlandicum* and *Dicranum scoparium* did produce capsules occasionally, they were abundant at this site. The moist nature of this sheltered habitat must be a factor in allowing fertilisation to take place. Also of note was the local blue-coloured leafy liverwort *Calypogeia azurea*, present as a large sheet on the damp sandstone face of a quarry near the main path to the Pike. Unfortunately, this quarry is very attractive to the youth of Penrith and a den was built and fires lit in the hollow below the rock-face – which destroyed most of the plants in 2009. However, there has been a good partial recovery, although the liverwort *Diplophyllum albicans* and the mosses *Mnium hornum* and

Dicranella heteromalla are active competitors.

Nitrogen deposition is probably affecting the liverwort communities of decorticate logs here. The leafy liverworts *Nowellia curvifolia* and *Scapania umbrosa* were last seen in 2003 and in 2005 respectively, and the small thallose liverworts, *Riccardia palmata* in 2003, and *R. latifrons* in 2013. These were rare on logs in the very sheltered bases of the deep old sandstone quarries and were searched for intensively without success. I have noted that the surfaces of these logs are often quite bare of bryophyte cover and have a slimy feel to the surface as if coated by an algal/bacterial growth, which may inhibit liverwort colonisation.

The rare moss *Hypnum imponens* which is found at Cliburn Moss and in the past at Wan Fell was searched for without success. Although *Vaccinium vitis-idaea* (Cowberry) occurs elsewhere on the Penrith Sandstone heaths such as Whinfell Forest and Lazonby Fell and *Empetrum nigrum* (Crowberry) on Cliburn Moss, these species are absent from the Beacon area, as is *Goodyera repens*. Similarly, there was no sign of *Pyrola minor* (Lesser Wintergreen) which was reported from the Beacon Forest in 1883 (Hodgson, 1898). There is a specimen (undated) in the herbarium of the Natural History Museum, London, collected by J.G. Baker (1834–1920).

Although *Anastrepta* is an ancient survivor, *Bazzania trilobata* has gone and the future of several of the rarer species in the changing environment of the forest is uncertain. It is a woodland which should be treasured by the inhabitants of Penrith. It should also be noted that this is a commercial forest and part of the privately-owned Lowther Forest Estate and is not covered by the Right to Roam legislation. I would like to thank the foresters for their forbearance in allowing me to wander and provide the initial help. Herbarium material of all the taxa has been retained by the author. I would like to thank David Clarke for the photograph of the *Anastrepta*.

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Figure 1. Sitka Spruce invading *Anastrepta* site, Penrith Beacon, March 2018
(D. Clarke)

Lady's-slipper Orchid (*Cypripedium calceolus* (L.)) – its status in Cumbria

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As there are so few written sources, it is difficult to discover exactly how common Lady's-slipper Orchid was historically in Cumbria. Accounts are largely from late in the Victorian period when many roots of Lady's-slipper would probably have already been uprooted and transferred to gardens. That said, it is likely that populations of this orchid were never very high in Cumbria, nor as plentiful as at the sites near Ingleton and Kilnsey from where it was taken and sold on Skipton market. A review of the plant's history in the Yorkshire Dales can be found in Lee (2015).

Some of the areas in the county where the plant was reported as known are open to doubt and it is likely that from the late nineteenth century this was already a rare plant, with the main sites found in limestone woodlands around Morecambe Bay.

Baker (1885) reports that the plant was extinct from former known sites in the Vale of Legburthwaite (which, given the nature of the habitats, appears most unlikely) and that a single plant had been gathered, by the gardener of Brayton Hall, and shown to Hodgson. Either of these two sources may also allude to an unknown record where Keswick is cited as a place where the plant was noted. This is a more plausible record given Hodgson's authentication of the plant but the gardener would not say, other than refer to the River Ellen, where exactly the site was. The same author records that the plant was formerly found on Whitbarrow and in the north-west of the High Furness fells. Again, the last recorded site is doubtful, although suitable habitat occurs on the limestones below these fells. Of these only the Whitbarrow site suggests the habitat was where the plant would be expected.

Kendal Museum has a herbarium specimen collected by a well-respected Westmorland botanist Joseph Martindale of Staveley. The specimen is dated May 1882 but, as inscribed on the herbarium sheet, it came from his own garden and with no clue as to the origin of the plant (Kendal Museum/Kendal College, pers. comm.).

Research was undertaken by the Nature Conservancy Council (NCC, North-east Region) in 1988. An internal report (Winder, 1988) brought together data held by the organisation at that time. It included details of 26 sites reported to the NCC as former sites for *Cypripedium*, captive plants thought to be of wild origin, historic introductions unconnected with the present re-introduction programme and other locations of interest. The site data included is from Yorkshire, Lancashire or County

Durham and there appear to be no records relating to Cumbria. There is reference to a 'captive plant' held by a private individual near Carlisle, but even that plant was thought to be of continental origin.

There is also some ambiguity about plants that may have been found in the Arnside-Silverdale area. References pre-1974 to the Milnthorpe and Arnside areas could have been ambiguous as to whether the county concerned was actually Westmorland or Lancashire North-of-the-Sands (i.e. Furness). What does appear clear is that there was a site at Gait Barrows (Lancashire) but the possibility of other locations, on either side of the Cumbria/Lancs boundary cannot be ruled out. Whatever, the levels of population were probably very small.

Wilson (1938) in his *Flora* starts by saying that the plant was found in rocky woods on limestone, and that it is very rare, and 'perhaps now extinct'. He recognised that former sites included Whitbarrow and the Arnside neighbourhood and concluded that 'a fresh discovery of this plant is very desirable'.

The dilemmas are perhaps illustrated the following examples. A nineteenth-century specimen in the Natural History Museum, London is labelled as collected near Lancaster. Ashfield's 1864 note quoted in Greenwood (2004) says that he saw 'a specimen in the wild near Milnthorpe not far from Silverdale a few years since'. An 1890 note records a specimen at Gait Barrows and at a field nearby, whilst Greenwood also reports a record of a plant on Arnside Knott in 1938 that was never seen again. Anyone who knows this area will recognise that suitable habitat overlaps the Lancashire and Cumbria boundary hereabouts.

Later writers such as Ratcliffe (2002) mention only, with no source, a former record from Whitbarrow, whilst the naturalist who was sometimes keen to tell where rare plants could be found, Eric Hardy (1973), keeps uniquely quiet on the subject.

All this is surprising in that it would have been expected that some of these authors would have known of the plant formerly found on the fringe of Silverdale golf course which is believed to have been collected by Reginald Farrer of Clapham from eastern Europe and given to a friend of his who lived overlooking the golf course. But again, none of this can be currently verified and the only hope is that some historian researching the files of historic estates, such as Hornby Castle, might stumble across some record or correspondence about other sources of Lady's-slipper.

Given the relative success of reintroduction of the species it is probable that the population is now greater than that at the end of nineteenth-century. The record of the re-introduction into Cumbria cannot ignore the main sites just outside the county around Ingleton in Yorkshire and at Gait Barrows. The programme was discussed by

Brodie & Petley-Jones (2012). Re-introduction may perhaps be the wrong word, since while it is possible that the chosen sites are close to past native sites, the lack of any real detail as to the location of the latter means that the policy of trying to establish the plant in the wild has to be based on finding the best habitat available that appears to lie within the presumed natural range of the plant.

It now seems appropriate to review the current status of this plant in Cumbria, though it is worth recording that the site with most success in our area is just over the county boundary at Gait Barrows, where an annual open weekend is held usually on the last weekend in May or the first in June. The population of plants at this site probably exceeds the total population currently in Cumbria.

In 2012 we reported on four sites where (re-)introduction had been tried (Brodie & Petley-Jones, *op. cit.*). Of these two are still extant. Our site 1 had already been discontinued for reasons we reported. Site 2 still has plants with around ten stems, but in 2017 no flowers were found. Site 3 has proved the most successful of the Cumbria sites, with seven small sub-sites each with one or two plants introduced. Like all such experimental introductions/re-introductions, it is open to a number of uncontrollable variables. In 2014 this site had 44 stems and nine flowers; 2015 had 45 stems, six flowers and one seed-bearing pod; 2016 had 39 stems, 11 flowers of which seven had set seed. 2017 saw a record productivity of 52 stems with 26 flowers but seed set was not recorded.

Site 4 has proved unviable but the reasons for this have not fully been ascertained. Site 5 had two plants introduced in early 2017 and these produced stems much later in June than other sites. One plant produced a single stem and the plant with three stems was stolen. It is likely that some parts of plants from site three had also been tampered with, as has happened at Gait Barrows.

Concluding remarks

It appears that Lady's-slipper Orchid was native to Westmorland and despite the problems with natural pests, collectors and the secrecy which has long surrounded such sites, it has not, in the last century or so, been other than extremely rare. The current population is stable, and with the potential for more plants to be introduced though still with the same long-term issues of damage and collecting. That said it is possible that the current population of the plant in the present county of Cumbria is perhaps as high as it was in later Victorian times and at any time thereafter.

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Scarf Stones, Derwent Water – place-name evidence for the historical occurrence of Cormorants inland in Cumbria

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Close to the centre of Derwent Water is a small rocky islet known as the ‘Scarf Stones’ (NY263210). ‘Scarf’ is an unusual place-name element (in England at least) but potentially tells us something about the wildlife that occurred here at some point in the past. Unfortunately, the Scarf Stones are not mentioned in the English Place-name Society’s volume on place-names in Cumberland (Armstrong *et al.*, 1971) and the earliest reference to them that I have been able to find is on the 1843–46 version of the Ordnance Survey ‘County’ series of maps, but the name is almost certainly of much earlier origin. It is not uncommon as a place-name element in the north of Scotland, the village of Scarfiskerry on the Pentland Firth, roughly midway between John o’Groats and Thurso, being an obvious example. There are several other place-names containing the ‘scarf’ element around the coast of Caithness – Scarf Geo, Scarf Craig, Scarf Rock and so on – and over twenty such names in Orkney. ‘Scarf’ in these derives from the Old Norse *skarfr*, a generic name for cormorants and shags (there is no equivalent *single* word for members of the family *Phalacrocoracidae* in English, rather ‘cormorant’ is used for the larger species and ‘shag’ for the smaller ones). Place-names in Britain containing ‘scarf’ are thus likely to have originated with Norse settlers, which, assuming this applies to the Scarf Stones, suggests that the name began to be used around the end of the 10th century or the first half of the 11th century, that is, about a thousand years ago (see also comments in Sellers, 2015). Precisely which species is referred to by these place-names will vary from location to location. Scarfiskerry and the other Caithness and Orkney place-names almost certainly refer to Shags *Phalacrocorax aristotelis* which, within the past half-century or so, have been much more numerous in these areas than Cormorants *P. carbo*, and this has presumably always been the case. In Cumbria, by contrast, it seems much more likely that ‘scarf’ refers to Cormorants. Shags are a more strictly marine species than Cormorants and are rarely found inland; it seems very unlikely that their extremely infrequent occurrences as far from the sea as Derwent Water would have given rise to a place name. On the other hand, Cormorants return repeatedly to favourite loafing spots such as the Scarf Stones, to dry their plumage, preen, and digest their food. This would almost certainly have been in the winter months, but Cormorants certainly once

bred inland in Britain, and a number of long-established inland colonies have persisted to the present day, for instance at Bird Rock (Craig yr Aderyn) on an inland cliff in Merionethshire and at Mochrum Loch in Wigtownshire where they breed on a small island (Sellers *et al.*, 1997).

With the exception of the occasional vagrant, Cormorants were unknown inland in most parts of Britain before the 1960s (Wernham *et al.*, 2002). Since then winter numbers have grown rapidly and they have become a familiar sight wherever there is suitable habitat (Kirby *et al.*, 1995). In Lakeland, by contrast, it is clear that they started to appear inland well before this; on Windermere, for instance, they have been seen regularly since the First World War (Blezard *et al.*, 1943). The position as regards Derwent Water is less clear, but there is no doubt that Cormorants have wintered here regularly for the past several decades, and the birds not only use the Scarf Stones as a loafing area but, unusually for Cormorants, gather there as dusk approaches before flying to their preferred night-time roosting place in trees on Rampsholme Island, a few hundred metres to the north.

In summary the ‘Scarf Stones’ place-name hints that Cormorants occurred regularly on Derwent Water around a thousand years ago, most probably in the winter months, but just possibly as breeding birds.

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Cork Oak (*Quercus suber*) at St Mary's Church, Gosforth

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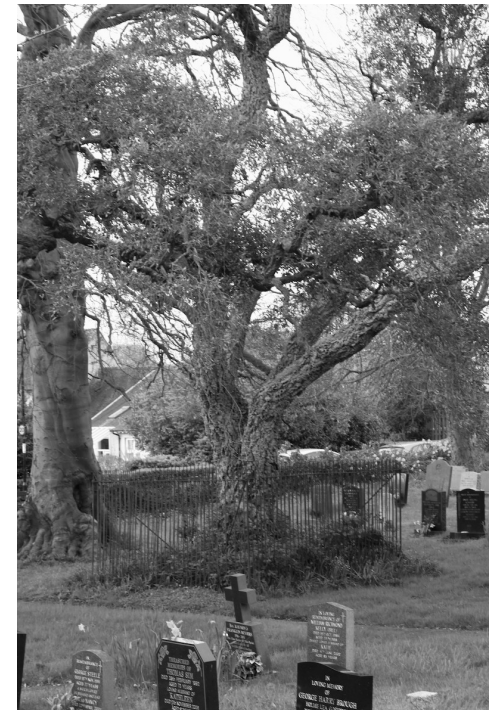
St Mary's Church, Gosforth, is renowned for its early Christian relics, notably a Viking cross and several hogback tombs. Rather less well-known is the Cork Oak *Quercus suber* (Linnaeus, 1753) growing in the churchyard, said by some local sources to be the most northerly in England (e.g. *Old Cumbria Gazetteer*) and by others as the most northerly in Europe (e.g. the BBC *Countryfile* website). Few naturalists appear to be aware of its presence here, and it is not, for instance, mentioned by Elwes & Henry (1910), nor does it appear in the NBN Gateway's database. This note outlines what is known about this curious tree.

The tree is located some 50 m east of the east wall of the church, in what is now part of the churchyard. It was planted in 1833 by the Rev. James Lowther Senhouse, then Rector of St Mary's. At the time the Rectory was situated immediately to the east of the church, and it seems that the tree was actually planted in the Rectory garden and only when the Rectory and its garden wall were demolished in 1864 did it become part of the churchyard. Quite how the Rev. Senhouse came by the tree or what persuaded him to try and grow it here are not known, but there is no doubt that it has long been an object of curiosity to local people. Two further Cork Oaks were planted in the churchyard in 1937 to commemorate the coronation of King George IV. Both, however, died. It is reported that one succumbed because it 'had been given no shelter' and that the other was 'smothered by fir trees planted on the advice of an expert to give it shelter' (Ridgway, 1964).

The tree has the flat-domed appearance typical of Cork Oaks. As viewed from the north, the tree is somewhat lop-sided, having lost two of its main limbs on its west side at some time in the past and there is limited growth on the tree's south side due to the proximity of a large Beech. The leaves are mostly 40–50 mm in length with typically six veins, elliptic in shape with margin entire (a few slightly serrated close to the apex) and the upper surface convex. On this basis identification is confirmed as a Cork Oak, rather than a Lucombe Oak *Quercus × crenata* (hybrid between *Q. suber* and the Turkey Oak *Q. cerris*) or any other hybrid involving *Q. suber*.

Cork Oaks are native to the western Mediterranean and are the basis of an extensive industry in Portugal producing cork stoppers. Cumbria is relatively far north for the species, but St Mary's churchyard is quite sheltered, being protected from northerly

or westerly winds by Ponsonby Fell and more immediately by the church itself from the prevailing south-westerly winds. The site is, however, far from frost free. The distribution map available at the NBN Gateway website shows Cork Oaks in England growing mainly in the south-west, with a few as far north as Cheshire. The Gosforth tree does, therefore, appear to be the most northerly (by some margin) in England currently extant, but there are old records of trees growing in Scotland (Elwes & Henry, 1910). There are, however, a number currently to be found in Northern Ireland, with one at Newtownards, Co Down – a few kilometres north of Gosforth – apparently being the most northerly in the United Kingdom, and perhaps in Europe.



Acknowledgements

I thank Ruth Schofield and the present Rector, Rev John Riley, for their help in compiling this note.

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Society News & Announcements

Notes from the Annual General Meeting, 7th March 2018

Members may obtain a full version of the Minutes of the AGM on request from the Secretary.

Treasurer's Report

Copy accounts are available to members from the Treasurer. The annual running costs of the Society for 2017/18 just broke even. The Society faces increased costs, with increases in room hire forecast in 2018 and again in 2019. Council proposed an increase in subscriptions as from October 2018, which were approved. The new rate will be: Members £16, Family Members £22, Associate Members [*Lakeland Naturalist* only] £8 (unchanged), Students £5 [no *Lakeland Naturalist*] (unchanged), Visitors to indoor meetings £3.00 (unchanged). Funds to cover the cost of publication of Volume XIII of *Transactions* (see below), which is issued free to members, have been transferred from the publications reserve into the operating account.

Secretary's Report

The meetings over this winter have had average attendance of 65. Last summer's nine field meetings all successfully took place, with no weather problems.

Mike Abbs, as Assistant Secretary, has taken over the arrangement of the field meetings for this summer to help spread the workload. There are two meetings this summer with restricted numbers where you will have to book a place if you wish to attend – the Hay Meadows visit in June and the Fossil Workshop in Sept. Details are on the membership card. For the other meetings members usually just turn up on the day of the meeting at the time and place stated but there are contact telephone numbers in case you have any queries about the weather or terrain.

President's Report

2018 is our 125th anniversary year. The issue of a new volume of *Transactions* is a fitting way to mark this occasion. The various authors and the editors, David Clarke and Jeremy Roberts, are to be congratulated and thanked for their efforts in producing such a fine publication. It is a credit to them all and to the Society.

Rationalisation of the Society's library is being undertaken with a view to thinning out material that is irrelevant to the Society. Members will be informed of potential disposals. Tullie House is happy to continue to house the library.

The possibility of switching to electronic publication of *Lakeland Naturalist* has

been raised. A show of hands was invited as to who would prefer to receive *Lakeland Naturalist* in electronic format rather than as a hard copy – the great majority of the AGM preferred to receive hard copy.

New European Union legislation requires us to inform all members about the personal data the Society holds about them and for what purposes. The Society holds the names and addresses of subscribing members for the legitimate purpose of running the Society and mailing out the journal and membership information. The Society will not pass on personal data to third parties and will not use the data for marketing purposes. A Data Protection Policy will be adopted by Council and circulated to all members (see insert with this issue).

Council and officers are thanked for their service to the Society.

Election of Council and Officers for 2018/19

All officers and Council members were willing to stand for a further year and were re-elected.

CNHS contribution to Tullie House Science Explorer's Weekend, 28–29 April 2018

This takes the form of a 100-image looped PowerPoint presentation of Cumbrian wildlife photographs taken by Society members. Each image is briefly captioned and the show includes screens promoting the Society and its activities. Images include birds, mammals, reptiles, amphibians, insects, spiders, flowering plants, ferns, mosses, lichens and fungi. These are presented in randomised order. (Details of the whole weekend are on the CBDC website at www.cbdc.org.uk)

Transactions of Carlisle Natural History Society Volume XIII

The Society is pleased to report the publication of its thirteenth volume of these occasional publications, the first of which appeared as long ago as 1909. The current volume coincides with the Society's 125th Anniversary. Volume XIII was made available at the AGM on 7th March 2018 and also distributed to those not attending, with limited stock remaining for other interested parties. We have sent review copies to relevant organisations nationwide, and also placed copies with local and national conservation organisations and libraries.

The present volume carries the format forwards, will full colour for the first time ever, and a smart, modern look. Its contents derive from three of our current members, two with the collaboration of co-workers, making for four major articles. John Callion

is joined by John Strowger for an extensively researched study of the history of the Dotterel in Cumbria, gathering all known historical data, as well as bringing the story up-to-date. A recent photograph of a breeding bird adorns the cover. John Callion has also worked with Pete Davies and they report on a fascinating long-term study of the Reed Warbler at Bassenthwaite Lake, based on annual ringing efforts over 20 years. Frank Mawby, the Society's Recorder, is well known for his enthusiasm for the Pink-footed Goose and has contributed an account of its use of the Solway Firth over the past 20 years, reflecting the latest developments and issues. Finally, Robin Sellers has used his interests in the history of Natural History to record what is known about the taxidermists of the county. He looks at the practitioners of this 'art' in its heyday – the 19th and early 20th centuries, when killing and collecting birds and other vertebrates for sport, study or display was an acceptable norm.

The volume has been edited by David Clarke and Jeremy Roberts and printed by HH Reed of Penrith. Purbound, with paper cover, 136 pages. Free to members at time of publication; £5 to those joining subsequently; full price: £12.

Editor