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Lakeland Naturalist



— a journal of Cumbrian Natural History

Spring 2016



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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Address: c/o Tullie House Museum, Castle Street, Carlisle CA3 8TP
Tel: 01228-618736; email: info@carlisenats.org.uk
Editor: David Clarke: david.clarke19@virgin.net; 01228-560117
Editorial Panel: Roy Atkins, David Clarke, Stephen Hewitt, Jeremy Roberts
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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 2016 & 1st February 2017

Cover:

Barn Owl hunting in daytime, Raby Cotes. 21 February 2016, 1300 GMT

© *Nick Franklin*

9 April (Saturday): Borrowdale Lichens

Leader: Allan Pentecost (contact Marie Saag). Meet in Great Wood National Trust (pay & display) car park NY273214 at 10.30am

7 May (Saturday): Finglandrigg - Early Migrant Birds

Leaders: Mike & Anne Abbs. Meet at NY282572 Haverlands layby on the B5307 at 10am

5 June (Sunday): Oldside Wind Farm, Workington – Butterflies & Shore

Leaders: Sam Griffin & Lucy Merry. Meet outside Carlisle College, Victoria Place at 9am or at car park north of River Derwent at NX995303 at 10.15am

18 June (Saturday): Thornhill Moss and Meadows

Leader: Frank Mawby. Meet at layby on B5302 Wigton to Abbeytown road (NY191491) at 10am

2 July (Saturday): Bolton Fell Moss

Leader: Alasdair Brock (contact Marie Saag). Meet at 10.30am Bolton Fell Moss entrance at NY486699. Looking at restoration work in progress and old intact moss, finishing approx. 3pm

17 July (Sunday): Southern Uplands Carrifran/Talla

Leader: Tim Frost. Meet by Carlisle College, Victoria Place at 9am or at the Carrifran Wildwood car park NT1599.1155 at 10.30am. Mountain excursion.

5 August (Friday evening): Scaleby Moss – moth night

Leader: Gary Hedges. Meet at 9pm. Please contact Gary the day before for details of access location and parking

21 August: Carrock Fell

Leader: Stephen Hewitt. Meet at Mosedale Bridge NY356320 at 10am

1 October (Saturday morning): Whinfell Forest – Fungus Foray

Leader: Paul Nichol. Meet at 10am at NY574279. Turn south off the A66 and take entrance road to Centerparcs. Our group will assemble before the gatehouse



1. (p. 2) Snow Goose (with Barnacles). Bowness-on-Solway, 10 November 2015
© Nick Franklin



2. (p. 3) American Golden Plover (in moult) amongst birds of European race. Anthorn, 2 October 2015
© Nick Franklin



3. (p. 9)

The great diving beetle
Dystiscus circumflexus

North Plain, 29 May 2015

(scale bar 15 mm)

© Stuart Colgate



4. (p. 8) Brimstone butterfly, male. Watchtree Nature Reserve, Great Orton, 30 June 2015
© Richard Speirs



5. (p. 10)

The fungus *Tricholomopsis cf. pteridicola*. Collected from Ruthwaite Cove, Dollywaggon Pike, 12 October 2008

© Stephen Hewitt



8. (p. 24) Grey Seal female with the second pup found at South Walney Nature Reserve, 22 November 2015

© Cumbria Wildlife Trust



6. (p. 21)

Tottergill lime kiln, Geltsdale

© Tina Wiffen



7. (p. 22)

Brown Long-eared Bat in crevice in culvert, January 2016

© Tina Wiffen



9. (p. 14) The scour 'lagoon' beside the R. Eden: Holme Eden church on horizon at rhs; main river and its E bank on far left. 10 Feb 2016

© David Clarke

Wildlife Reports – September 2015 to February 2016

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

Weather (courtesy of Tony Matthews, Drumburgh): September was cool but settled and the second driest on record to 2014. October continued settled until later in the month but was still the driest since 2007. November became very wet and unsettled to be second wettest on record and the third mildest. The mild, wet weather continued through December and with 260 mm of rain it became the wettest December since records began. There was extensive flooding in Cumbria after extreme rainfall over the three days of 3rd to 5th. The wet mild weather continued through January with a lot of windy days although one brief cold spell brought a small snowfall. From 9 February conditions began to settle and became colder, with frequent frosts making a cooler than average month.

The weather clearly had an impact on wildlife. In January, Hawthorn, Honeysuckle and Elder leaves were showing, but February seemed to slow this down. One species noticeably affected was the **Barn Owl**, which has to be the star bird of this period, particularly the number of daytime sightings (hence cover image). We have received 36 records since September, with the majority since mid-December, many out as early as midday. I have had comments from non-birding people about the numbers seen, and indeed reports from other areas of the country. It may be a reaction to the very wet weather of January and February, but could it also be related to the number of observers? My co-counter and I had a very interesting observation of an owl hunting near Border Marsh. We watched it make a catch. Immediately a **Kestrel** tried to take the prey. The owl flew on 30 yards, dropped to the ground and again the Kestrel came in. When the owl lifted, the mammal was gone and we believe it had been able to swallow the catch, leaving the Kestrel hungry and frustrated. Perhaps one reason why Barn Owls usually hunt at night?

Birds

13 **Whooper Swans** flew over Kirkbride on 14 October (SM) and three over the sea at Allonby on 15 October (JC). Subsequently flocks were reported from Kirkbride, where at least 125 spent many days on a stubble field. Other reports were 30 at Mealo, 4 November (JC); 62 at Blackdyke, 13 November (JC, MP). Numbers at the regular winter site at Walby ranged from 13 to 60 (BJ, DC). JM located a regular flock at Kirby Thore, with a maximum of 48; C & AR noted a flock of 43 at Croftends, Rockcliffe on 24 January. However, the largest number spent most of the winter on various fields around Kirkbride. Numbers of juveniles seemed generally low. **Pink-footed Geese** were present through the autumn but rarely more than 4000, they seemed to feed well out in West Cumbria with few records to the north and east of Carlisle the most notable being a flock of 2000 on a field by the Esk at Longtown on 19 January (DJ). During

December they seemed to vanish. The expected movement north from Lancashire occurred on 11 and 12 February, with skeins coming north past Allonby (JC) but it was quite a small movement and the best total I could muster was 6–8000 at various locations. This was borne out by my Lancashire contacts who reported large numbers still around Southport and the Wyre/Lune area in early March. I noticed 4 **European White-fronted Geese** with a flock of Pinks and Barnacles near Raby Cote on 20 February and NF had a single on 26 February. A flock of 4000 to 6000 **Barnacle Geese** frequented the Moricambe Bay marshes throughout the winter with up to four white-plumaged birds. A fifth on 8 December turned out to be a **Snow Goose** (DJ, NF) and was noted frequently thereafter (plate 1). Three **Greenland White-fronted Geese** were with the Whoopers on the Angerton stubble from 4 to 11 December (NF, MP). **Gadwall** records were from Watchtree, and on 14 December seven at Sunbiggin Tarn (BR). Two **Long-tailed Duck** at Anthorn were reported by JI on 23 November and DJ on 3 December. A female **Smew** was on the River Esk near Longtown on 27 December (DJ). Inland **Shelduck** included 15 in a field at Cumwhitton, 8 February (DC) – many tend to come inland at this time probably heralding preparations for the breeding season.

Only two records for **Grey Partridge** suggest perhaps a poor breeding season but they can be seen regularly at Watchtree, a nice covey of nine was seen by DJ on 22 November at Cardurnock. A count of 17 male and 11 female **Black Grouse** were seen feeding in grass fields near Garrigill along the old road up to Moorhouse by BR on 2 January. A notable count of 1100 **Cormorants** was at Workington Docks on 16 November (JC). We see **Little Egrets** on the marshes from Rockcliffe (GB) to Skinburness most days now, and occasionally inland. A **Great White Egret** made a brief appearance at RSPB North Plain around 22 December (HM).

Only three records were received for **Hen Harrier**: on 16 September TW saw one hunting Ralfland Fell near Shap; NF saw a female quartering fields near between Cardurnock and Campfield on 23 November, and DJ watched a male hunting Bowness Common on 20 January. **Merlin** is perhaps under-recorded but NF and DJ saw two over Campfield Marsh on 8 December; I saw one on Border Marsh on 13 December and MP two at Bowness on 14 January. On 3 February BR saw a female near Sunbiggin Tarn. A dead, colour-ringed female **Goshawk** at Finglandrigg Wood on 14 December is discussed later. Maybe **Peregrines** are taken for granted as only three records were received: one I had on Calvo Marsh on 13 December, another from DJ of one on a kill on Campfield Marsh on 23 December and the third of a bird I saw circling high over Oulton then moving south on 14 February.

Sightings of **Water Rail** are rare but BB recorded one in a torch beam by a pond at Longdales, Armathwaite on 28 September. I was lucky to spot two **Common Cranes** circling to the east of Watchtree on 4 October before they moved off south-east.

An **Avocet** has wintered at Campfield and been seen frequently by several of us (DJ, HM, NF). Diligent searching by NF revealed an **American Golden Plover** with a flock of Golden Plover at Anthorn on 2 October (plate 2). However, the usual large flocks of Golden Plover seem to have been noticeably absent from their regular haunts this winter. Is this a result of the very wet winter or is climate change keeping them on the continent? It was not the only unusual sighting: a **Little Stint** was still at Port Carlisle with Dunlins on 4 February (NF). At Workington Harbour RH counted 25 **Purple Sandpiper** – a regular annual wintering site. **Woodcocks** are only seen by people who wander off the beaten track and on one such occasion CM flushed 24 from a small woodland on a remote part of Drumburgh Moss on 29 December. Similarly, **Jack Snipe** can be almost trodden on before flushing, so it was good to have records from Cliburn Moss (CA) 11 January, along the Esk near Longtown (NF) 18 January and SW on Drumburgh Marsh 25 January. Few records of **Snipe** are received but RS put in a record for five flushed from a wet patch in a snow-covered field at Broadwath on 17 January, the only snowfall of the month. A late **Whimbrel** was at Allonby on 25 November (JC), an overwintering **Greenshank** was at Glasson Point on 25 November and again on 18 January (CA), and the last unusual wader observed was a **Common Sandpiper** on 18 (NF) and 19 January (DJ) along the R. Esk near Arthuret.

A **Great Skua** was seen feeding on a kill on the water off Bowness-on-Solway on 16 November (DJ). On 29 January **Mediterranean Gulls** were seen at Allonby (one, by JC), and two on Kirkbride Airfield (CA). **Kittiwakes**, ca. 110, were seen coming in with the tide off Campfield Marsh on 29 February (CA). A **Guillemot** under a car in Dalston on 30 November was a most unusual find for AA, who fed it up on mackerel fillets and released it at Anthorn the following day.

A **Short-eared Owl** was hunting the rough grass at the inland of Calvo Marsh when I did the WEBS count on 18 October. One was hunting at Mawbray on 21 November (MP), another over the moors around Sunbiggin Tarn (BR) on 27 December and the latest on Drumburgh Moss on 23 February seen by FR & SG.

A **Great Grey Shrike** was seen by JM on 4 November along the track between Talkin Head and The Greens. **Ravens** are perhaps more frequently seen around the Solway than the sparse records reveal; DJ saw two on the marsh scrapes on Campfield Marsh on 23 December. On the field trip on 27 February we heard one calling on the Anthorn Masts, where they were reported to have bred last year (JI).

Willow Tits are becoming quite scarce on the Solway so a record at the Glendale Caravan site near bird feeders on 1 February was welcome (CA). **Skylarks** can congregate in large flocks in the winter and on 17 January numbers at Allonby were estimated at hundreds (JC). The last **Swallow** record for the autumn was from Redhills, Rockcliffe (NF) on 11 October. A wintering **Chiffchaff** was feeding in ivy just below JM's home at Jockey Shield on 15 January. The only wintering **Blackcap** record was from DI on 30 January in her Etterby Street garden. **Waxwing** were also

very scarce and the only record I picked up was from SW on 24 November flying over Brampton. **Nuthatch** is well-established on the Solway Plain now but a more unusual record was of two on bird feeders in an enclosed back yard in Lismore Close, Carlisle (HS). **Dipper** was recorded by MP on the R Wiza, Wigton, with two on 25 December. Two were on R. Esk, Longtown (DJ) on 19 January, and on the same day RS heard a singing male on Cairn Beck, Broadwath. The most recent was one along the Eden in Rickerby Park HS on 31 January. A **Kingfisher** flew by C & AR on the river at Willowholme, Carlisle on 12 November. An unusual site for one was Moorpark Farm near Thurstonfield Lough on 30 November, reported by the farmer to RPD. Another was recorded by DJ on the Esk at Longtown on 19 January.

A single record of **Ring Ouzel** on Shap Fell (TW) on 11 December is quite late. The only record of a **Black Redstart** this season was on 30 October at Redhall Farm near Wigton. The last record for **Wheatear** was from SW of a bird along the track to Tindale Tarn on 12 November. A **Desert Wheatear** was found by DS on the beach of Tarn Bay, Eskmeals on 16 November. **Pied Wagtails** roost in some unusual places, often related to warmth: a roost of over 100 was forming at dusk on 30 November in a tree lit with Christmas lights in Bank Street, Carlisle. I later heard of a similar roost in Penrith. **Linnet** flocks have been quite scarce although they may be missed because they are readily attracted to the wild bird food crops that some farmers plant under the Agri-Environment schemes. The RSPB also planted a crop at Rogersceugh which attracted large numbers of **Linnet**, **Goldfinch**, **Tree Sparrow** and **Reed Bunting**. A stubble field along the Glendale Caravan Site track up to Glasson Moss held a flock of at least 70 Linnet (CA) on 1 February. **Bramblings** have also been scarce with only three records from North Plain Farm RSPB feeders (NF) 11 October. One in a garden at Hallbankgate on 2 November (CH) and one on the feeders at Watchtree on 12 November. **Crossbill** records were equally scarce with a single record of a male singing briefly at Cliburn Moss NNR on 12 February (CA).

Insects

Red Admirals were recorded frequently during the autumn with four (DC, GW, KC) in November, the last being from RPD at the RSPB North Plain Farm woodland on 19 November. The last record for **Peacock** was one of my own, again from North Plain Farm on 12 November. **Painted Ladies**, having been widespread in 2015, remained late into the year; DC had one in his garden at Cumwhitton on 2 November, along with a very late **Small Copper**. On the same day he had the last record for **Small Tortoiseshell** and **Speckled Wood**. Another late **Speckled Wood** was recorded by FB on 26 October at Larch Cottage, Melkinthorpe. A **Hummingbird Hawk-moth** was seen by C & AR in their Wreay Garden on 1 November. Other late insects included 20 **Migrant Hawker** dragonflies (JC) at a regular site by the wind turbines near Siddick on 7 September and a **Southern Hawker** dragonfly at Broadwath on 1 November by

RS at his garden pond. **Silver-Y Moths** were quite abundant in October, though little-reported: DC still had one present on 2 November in his Cumwhitton garden.

Mammals and other vertebrates

A few **Red Squirrels** are holding out on the Solway Plain and the diligent efforts of the Red Squirrel Group are perhaps yielding results. Sightings came from Cliburn Moss on 4 November (CM) and Watchtree 16 January (M & AA). I was also given a record from a photographer friend of one at Bridge End, Dalston on 21 November. **Grey Squirrel** records remain frequent, with eight records in the report period, some of multiple sightings. **Otter** reports are also quite regular, with five cards from TT of one near Brown Rigg, Plumpton in September. Others were: Watchtree 18 October; Aira Force (Ullswater) 3 November (reported to RPD); a female with a cub on the Esk near Longtown on 18 January (DJ), and, most recently, one in Workington Harbour (RH) on 17 February. **Rabbits** seem to come and go and we tend to assume it is myxomatosis, but a virulent form of rabbit haemorrhagic disease has been found – a swift killer, leaving no obvious external signs. Having not seen many in the winter I was pleased to see at least five on the Anthorn masts site on the 27 February field trip. **Brown Hares** are I hope also under-recorded. We take them for granted at Watchtree so it was good to see one at Red Hall Farm on 28 December and to hear of one crossing the road near Middlesceugh on 2 February (PG). **Badgers** are also under-recorded and I was delighted when we had one running along the road in the car headlights on the steep hill coming north from Sebergham on 2 October; a visitor to Watchtree photographed one on the same day by the boundary fence. **Hedgehog** records seem to reflect a worrying decline with no autumn records (not even a road casualty). The mild, wet weather in December encouraged one to come out of hibernation on 29 December when MS saw it foraging in her garden at Hayton. On 26 October DH saw up to five **Harbour Porpoise** feeding on the ebb tide in Silloth Bay. **Common Frogs** were active by 17 February (RH) in his Denton Holme garden but as usual DH was one of the first to record spawn, in a pond at his Garden House Nursery in Dalston on 21 February.

Recorders: AA Anne Abbs; M & AA Mike & Anne Abbs; CA Colin Auld; BB Brian Bowes; FB Frances Bell; GB Glen Bryson; DC David Clarke; JC John Callion; KC Keith Clark; RPD Richard Dixon; NF Nick Franklin; FR & SG Russell & Sara Gomm; PG Paul Greaves; DH David Hickson; CH Chris Hind; RH Robin Hodgson; DI Dorothy Iveson; JI John Ireland; DJ David Johnston; BJ Bob Jones; CM Chris Mawby; SM Shelagh Mawby; JM John Miles; HM Hedda Moore; MP Mike Porter; BR Brian Redhead; C & AR Craig & Ann Robinson; MS Marie Saag; DS Dave Shackleton; RS Rob Shaw; HS Helen Spencer; SW Stephen Westerberg; TT Tony Tipling; TW Tony Williams; GW Gill Wilson.

Frank Mawby

Field Meeting

27 February 2016 – South Solway

Leader: Frank Mawby

Our first port of call was Skinburness Marsh where the first large flocks of geese were encountered, if distantly. Two large flocks of Barnacles could be seen, one towards the Grune Point side and the other by the Calvo Marsh fence, amounting to an estimated 5000 to 6000 birds in all. Small flocks of Pink-footed Geese scattered amongst the Barnacles or around the marsh were estimated at about 1000. A hovering Kestrel appeared distantly and a few Skylarks were present, occasionally bursting into song.

Knowing that somewhere there should be many more Pink-feet, we headed for the Salt Cotes/Raby Cote end of Newton Marsh. On the way we noted that the Rooks at Kingside Hill and Abbeytown were starting to build, some with quite well-formed nests. A splendid male Stonechat and a group of four Reed Buntings distracted our attention before a scan over to Border Marsh soon revealed the geese – the majority of the 6000 or so being on two grass fields just inland and south of East Border Farm. As we watched, the whole flock lifted and many settled onto Border Marsh – still rather distant. Whilst an impressive sight, the flock was still well below numbers we often have in the area by late February. Shortly after this movement another flock of ‘Pinks’ lifted off Newton Marsh, about half turning inland, the remainder going to Border Marsh. At the same time a Little Egret was seen to land on Salt Cotes Marsh, about 400 m out.

From Salt Cotes we headed for Kirkbride and turned up the lonning to the sewage treatment plant. A small flock of mixed tits were passing by, with two Long-tailed amongst them. Local birds will now be territorial; a definitely territorial Song Thrush was singing near the village. A short distance along the public footpath we could see Whooper Swans grazing on a grass ley in a field they have used year on year. Last week the flock had been over 100; now it had dwindled to 45, including 6 juveniles, which were starting to lose the grey appearance, their bills just beginning to turn yellow.

Moving on, we parked at the entrance to Glasson Moss and walked to Rogersceugh (the drumlin surrounded by Bowness Common). As we approached the old railway crossing, a Barn Owl was seen hunting the rough grass field within the RSPB Reserve. It made at least three catch attempts and may possibly have been successful on the last of these. The time was 12.50, adding yet another to the remarkable number of daytime records of this species since mid-December. We walked on, and as we watched a small group of Teal on new pools created by RSPB, the owl flew past towards Rogersceugh, where it was probably returning to roost. At the top of the hill the RSPB has planted a wild bird food crop of about an acre. Over the winter it has held a very large flock of finches and buntings. Although now dwindling and the Linnets gone, we estimated at least 100 birds were still present, of which at least 50 were Goldfinches, with around 30 Reed Buntings and 30 Tree Sparrows. A few skeins of Pinkfeet passed over to the

west and seemed to carry on over the Solway. We spent a short while scanning for Hen Harrier and Short Eared Owl, to no avail. On the return walk we noted the large number of dead trees along the line of old railway, the result of a bog rehabilitation scheme. This is raising the water table in the adjacent bog to reverse the damage of the 1870’s when it was substantially drained to build the ‘Solway Crossing’ line. The old records state that the peat here was 51 feet deep (16m) at the deepest point. Considering the deepest peat in this area is now just 10 metres (33 feet), it shows what damage was done; Bowness Common had also been quite heavily drained in the 1850’s and perhaps even earlier when it was first subject to Enclosure.

We moved on to North Plain (RSPB) for lunch and watched birds coming and going to the feeders. They were mostly Chaffinch and tits, although Linnet and Greenfinch were nearby, and a Great Spotted Woodpecker flew over. After lunch we drove back a short way to the observation layby near West Common. With the tide rising, we were delighted to see a good range of waders and ducks including a splendid flock of at least 70 Pintail, Shoveler and Teal, most being here because the water on North Plain farm was probably frozen. Well out on the water there were a few Great Crested Grebes, and pair of Goosander amongst the ducks. Along the edge of the tide Dunlin, Grey Plover, Oystercatcher, Curlew and Redshank were feeding energetically before the advancing tide. As the roosts began to form along the edge of the marsh, the single wintering Avocet was bathing near a small group of Oystercatchers.

Moving up to the Maryland layby, the waders were now feeding on the last bit of uncovered intertidal mud, with a few Knot amongst with them. It was not easy determining waders at such a distance in dull light, so identifications were based primarily on ‘jizz’. On the marsh, another 4 Little Egrets were seen. These are now becoming increasingly familiar, though not yet proved to have bred.

We continued our journey, stopping again by the Anthorn masts in the hope of seeing Golden Plover and Lapwing, but the large flocks that normally use the fields here seem to have been absent this winter. Further round, four Red-breasted Merganser – three males and a female – soon flew off. Over Newton Marsh a very large ‘lift’ of Geese was seen, which split up, moving east and west. Behind us a Raven was briefly heard. (A pair was reported to have nested on one of the mast last season and its presence suggests that it may well be doing so again.). Seeing Rabbits prompted Paul Duff in our party to mention that he would like fresh dead specimens to check for a new strain of VHD (Viral Haemorrhagic Disease).

We finished at Anthorn, where a Wren scurried into gorse, reminding me that there seemed to be very few about at present. Despite notable ‘absentees’ such as Wigeon, Twite, Golden Plover, Peregrine and Merlin, our list for the day was 55 species, highlighting the richness of the area.

Frank Mawby

Notes & Records

Brimstone butterfly records outside the 'core-range' in Cumbria

Records of the Brimstone butterfly beyond its main breeding range in Cumbria occur annually, if in very small numbers.

Purging Buckthorn (*Rhamnus cathartica*) and Alder Buckthorn (*Frangula alnus*) are the only food-plants of the larvae, and Purging Buckthorn is a strong calcicole, more or less limited to limestone soils. Whilst they are widespread in south Cumbria, both food-plants have only scattered occurrence in the north or west of the county, some of which may relate to local plantings. As the county is at the northern edge of the native range of these plants, this is always likely to pose a limitation to the spread of the Brimstone, even if climate change, for example, begins to encourage it.

2014 records outside the main Cumbria range included Banks, Brampton (NY56), Eskdale (SD19), Stainton, Penrith (NY42), Orton (NY60), Millom (SD18), Great Corby (NY45) and Armathwaite (NY54). 2015 occurrences were noted at Mawbray

Banks (NY04), Burgh-by-Sands (NY35) and Watchtree NR (NY35). The last-mentioned was captured on camera (plate 4). The late date (30 June) and wear on the wings of that individual suggest that it was relatively old, and may have had time to wander far afield (the adults being the overwintering stage of course, and known to be particularly long-lived after appearing in spring). The first of at least two seen by Russell Gomm at Burgh-by-Sands in 2015 was on 10 April, with possibly the same one seen in his garden on 16th. Another individual (again in his garden) was on 15 July – a date tantalizingly poised between very late survivors of the spring generation and the beginning of the summer generation. (Record dates before April would be good indicators that the individuals concerned could have emerged

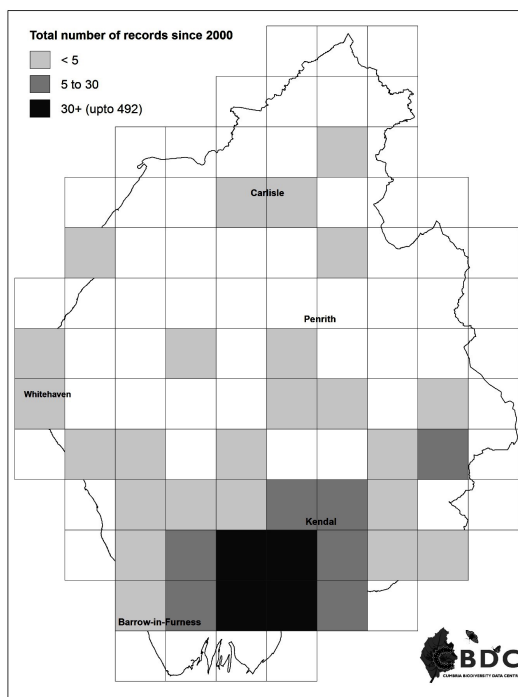


Figure 1 Brimstone butterfly: 10Km square records 2000–2015. Cumbria Biodiversity Data Centre: Crown copyright and database rights.

near to where they were recorded; this possibility becomes less and less likely further into the year.)

The map of records density kindly prepared by CBDC/Gary Hedges (fig. 1) clearly shows that the species' strongholds in the county are in the area immediately south-west of Kendal. The spread of records suggests that the species is mobile and has managed to at least 'prospect', if not actually breed, in a much wider area in recent years. (The insect also occurs to the east of the Pennines, so movements from that direction cannot be totally discounted.) With the increase in the numbers of recorders these days, it will be interesting to see whether the picture changes significantly in the coming seasons. Although Brimstone is a distinctive species, it is possible there could have been a few mis-identifications amongst the records, since there can be similar-sized very yellowy Large Whites around as well – and events such as the 'Big Butterfly Count' attract novice recorders. The records mentioned above are all believed reliable.

The species remains one to look out for, and not to be dismissed out of hand in the north and west, but be sure to take a photograph or a close look before recording it!

Steve Doyle, 14 The Willows, Durdar, Carlisle CA2 4UP

A second Cumbria record of the great diving beetle *Dytiscus circumflexus* Fabricius, 1801

On 29 May 2015, as part of the Bioblitz at Campfield Marsh, North Plain, Bowness-on-Solway, several bottle-traps were set and left overnight in four ponds, looking in particular for Great Crested Newts. In the morning, when the traps were checked in a pond at NY20206081 at the edge of a cattle-grazed field, a female diving beetle was found to be exploring her new temporary home, along with a number of other species. This particular pond was also shown to support Great Crested and Smooth Newts.

Because of the Bioblitz, the beetle was detained a while longer and taken to the Solway Wetlands Centre, to do her bit in enthusing visiting members of the public on the wonders of wildlife. On arrival at the Centre, the beetle was excitedly identified by SR to be *Dytiscus circumflexus*, this being only the second record of this species in Cumbria. Up to this point SC, the lucky collector, was unaware of the potential fame of his temporary companion!

Dytiscus circumflexus can be confused with the much commoner great diving beetle *D. marginalis*. Fortunately, two characteristics alone enable an accurate field identification of this stunning water beetle: a) the underside of *D. marginalis* is usually predominantly yellow with occasional dark markings, whereas in *D. circumflexus* the whole underside is transversely striped yellow and black – hence the nickname 'the wasp'; (b) the post-coxal processes (where hind legs join the abdomen)

in *D. circumflexus* are very sharply pointed, whereas in *D. marginalis* they are blunt. Plate 3 shows these features well.

There are however six species of great diving beetle in the UK. The reference below provides the identifying characters of all of these, as well as of other large water beetles. It is illustrated with excellent photos and diagrams.

All in all, this record of *D. circumflexus* is significant in that it provides evidence of the northward movement of some of these large beetles; it is also the most northerly record of this species in Britain at present.

Reference

Sutton, Peter (2008) *The Larger Water Beetles of the British Isles*. London: Amateur Entomologists' Society.

Stuart Colgate, 9 Highwood Crescent, Carlisle CA1 3LF
Steven Routledge, 13 Northwood Crescent, Carlisle CA3 9BP

Tricholomopsis pteridicola – a grassland fungus new to Cumbria?

On two or three occasions in the past, whilst searching for waxcaps and other grassland fungi on the lower slopes of the Cumbrian fells, I have been puzzled to find a toadstool that appeared to be Plums-and-Custard (*Tricholomopsis rutilans*) growing on grassy fell-sides. This woodland species is common enough but requires decaying wood of conifers on which to develop and the grassland situations in which I found it were far from any apparent source of conifer wood. I could find no answer to this puzzle at the time and these occurrences remained a mystery, although I did preserve some specimens for the Tullie House Museum collection.

However, from the report in *British Wildlife* (Roberts, 2016) it seems that Plums-and-Custard has now been recognised to be a complex of at least five different genetic lineages (Olariaga *et al.*, 2015). One of these is sufficiently distinct to be described as a new species – *Tricholomopsis pteridicola*. Unlike *T. rutilans*, which is found widely in association with decaying conifer wood, Olariaga and his associates report *T. pteridicola* as frequenting bracken-covered slopes in the western Pyrenees of Spain and France. The new species also differs from *T. rutilans* in its smaller size (cap diameter 7mm–28mm) and paler colours, the background colour of the fruit-body being yellowish-cream rather than bright custard-yellow. Roberts (*op. cit.*) recalls finding Plums-and-Custard fitting the description of *T. pteridicola* growing amongst bracken on upland grassland sites in Wales and reports the new species from two sites in Radnorshire and another in Breconshire.

Looking back through my photographs, I found scanned images of two specimens that I was preserving for the collection and which show the slender form and

characteristic pale colours of *T. pteridicola* (plate 5). The specimens were collected from unimproved bracken-covered grassland at High Snab Bank, Little Dale (NY219186) and Ruthwaite Cove, Dollywaggon Pike (NY353134) on 5 and 12 October 2008 respectively. I also recorded '*T. rutilans*', together with a number of grassland fungi, among bracken at Lanthwaite Green (NY160208) on 8 October 2005, which I also now believe to be referable to *T. pteridicola*. There is a further voucher specimen from this site preserved in Tullie House, that I collected on 13 September 2008.

It will be interesting to see whether DNA sequencing of British material confirms our species to be *P. pteridicola*. Given the genetic diversity revealed within the *rutilans* complex, it would seem not impossible that British material may be different again.

References

Olariaga, I., Laskibar, Z. & Holec, J. (2015) Molecular data reveal cryptic speciation within *Tricholomopsis rutilans*: description of *T. pteridicola* sp. nov. associated with *Pteridium aquilinum*. *Mycological Progress*, **14** (4): 21.
Roberts, P. (2016) Fungi, in 'Wildlife Reports'. *British Wildlife*, **27**(3): 214–215.

Stephen Hewitt, 28 Castle Drive, Penrith CA11 7ED

Goshawk ringing recovery at Finglandrigg NNR

On 14 December 2015 a visitor to Finglandrigg Wood NNR called the Natural England office and reported a dead 'Buzzard' lying on the path. Chris Mawby went to collect the bird and soon realised it was not a Buzzard but in all possibility a Goshawk. Together we investigated and determined that it was indeed a Goshawk – a juvenile female. The bird was carrying a BTO metal ring and a red colour ring with white identification letters. It was very thin and weighed only 705 gm, whereas a bird in good condition should weigh at least 1000 gm. The ringing recovery details show it was ringed on 9 July 2015 as a single nestling at a nest site at Tweedenhead, Newcastleton Forest, Scottish Borders. The bird was x-rayed but no evidence was found that it had been shot – a scenario that is expected in this often-persecuted species. It was handed over to Tullie House Museum for the collection and future reference.

Frank Mawby, 'Wayside', Kirkbride, Wigton, Cumbria CA7 5JR

Bean and Pink-footed Geese: an identification issue

Informed that a 'bean goose' had been acquired by a wildfowler whilst shooting at

Pink-footed Geese on 16 December 2015, I asked to see it. The specimen duly arrived in January. At first it certainly did seem that with orange legs and an assurance that the bill had been orange when fresh, it was possibly a Bean Goose, although the small size and general appearance immediately ruled out the so-called 'Taiga Bean Goose' *A. fabalis fabalis*. I took a number of measurements and decided that if it was a Bean at all, it was most likely to be the tundra subspecies, *A. fabalis rossicus*, whose measurements mostly fall into the same range as the Pink-footed Goose. The only measurement that does differ between the two is the bill length, and the bill of this bird was closer to Pink-foot than Bean, as was the colour, which despite the original orange had faded to the more typical pink of the Pink-foot. The general plumage description also seemed to be edging towards Pink-foot. I decided therefore to seek expert opinion at the Wildfowl & Wetlands Trust, Caerlaverock. The reaction of at least one of the three people I met (Brian Morrell, Larry Griffin and another colleague) was Pink-foot; nevertheless we checked it against the features in two identification books. What swung the odds in favour of Pink-foot was the grey colour of the wings and back and in particular the broad white terminal band on the tail feathers. *A. f. rossicus* has a general brownish colour cast whereas the Pink-foot is generally grey, and the tail band of *rossicus* is narrow. All the books state that a few Pink-footed Geese can have orange legs and bill, and that it and bean geese are quite closely related. It does illustrate the problems of identifying this sub-species of Bean amongst a flock of Pink-feet. The identification of the 'Taiga Bean Goose' is easier, large size alone being usually sufficient, but the identification of the 'Tundra Bean Goose' is clearly considerably more problematic.

The taxonomy of bean geese is complex and disputed, perhaps reflecting active evolution. There are five named geographical races/subspecies. Some authorities even split the forest (taiga) and tundra forms into two distinct species, with three of the races falling within the first (i.e. *A. fabalis* sensu stricto), and the remaining two races (including *rossicus*) within the second, which has been named *A. serrirostris*.

The specimen has been donated to Tullie House Museum collections for future reference.

Frank Mawby, 'Wayside', Kirkbride, Wigton, Cumbria CA7 5JR

Mass mortality of Razorbills and other seabirds on the Cumbria coast in February 2014 – a postscript

In the early months of 2014 there was a large wreck of seabirds on the coast of Cumbria, mainly involving Razorbills (*Alca torda*), Guillemots (*Uria aalge*) and Kittiwakes (*Rissa tridactyla*). A survey to determine the numbers of birds washed ashore, the species involved, their ages and origins *etc* was carried out in March 2014 and a report of the findings compiled (Sellers, 2014). This note summarises some

Table 1. Additional records on the origins of ringed seabirds recovered in Cumbria during the 2014 wreck

Ring No.	Location ringed	Age on ringing*	Age on recovery (y)
Gannet			
1369506	Great Saltee, Co.Wexford, Ireland	ch	14
Kittiwake			
(FRP) FX23360	Pointe du Raz, Finistere, France	ch	1
Razorbill			
K05775	Sanda Island, Argyll & Bute	ch	2
K25227	Garbh Eilean, Western Isles	ch	3
M69960	Puffin Island, Anglesey	ch	21
M80753	Sanda Island, Argyll & Bute	ad	20+
M89772	Great Saltee, Co.Wexford, Ireland	ch	16

* ch, chick; ad, adult

additional information that has since come to light.

The British Trust for Ornithology's annual ringing report for 2014 (Robinson *et al.*, 2015) lists seven additional ringing recoveries, details of which are shown in Table 1. These bring the total number of Razorbill recoveries in Cumbria generated by the wreck to 18. Of these 12 (67%) were from colonies around the Irish Sea (eight from Wales, two from Ireland and one from the Isle of Man) and six (33%) from the west coast of Scotland. The additional Kittiwake recovery was a bird ringed in France, which, with the single previous recovery, a bird from Norway, emphasises the wide catchment area of Kittiwakes found in the coastal waters off Cumbria in late winter. The final new recovery was a Gannet (*Morus bassanus*) from an Irish colony. Curiously no Guillemot recoveries were found during the March 2014 survey and none were recorded in Cumbria according to the BTO on-line ringing report. There was one recovery on the north side of the Solway at Eastriggs (a bird ringed seven years ago as a nestling on Skomer, Pembrokeshire); two others from further west on the Galloway coast had been marked respectively on Skomer (as a nestling ten years ago) and on Puffin Island, Anglesey (as an adult four years ago). Limited though the information is, it appears that the Guillemots involved in wreck were drawn from much the same area as the Razorbills.

The sample of Razorbill recoveries is now large enough to allow an estimate of the age distribution of the birds involved in the wreck to be made. Thus of the 18 recoveries now available, there were none in their first year of life, two (11%) were immature birds (that is were in their second or third year of life) and 16 (89%) were adults (four years or more old). The equivalent figures deduced from the number of grooves on the bills of a sample of 77 birds was 1.3% first-years, 10.4% immatures

and 88.3% adults – excellent agreement given the comparatively small number of recoveries available.

Despite the often large numbers of birds involved, these wrecks do not always result in significant changes to breeding numbers and it seemed of interest to determine what impact, if any, the 2014 wreck might have had on auks at Cumbria's only breeding colony at St Bees Head. Based on data kindly supplied by the RSPB, there were 101 individual Razorbills there in 2014, a reduction of 55% on the previous year, just 51% of the mean count for the five years between 2009 and 2013 and the lowest count in the previous twenty years. Razorbill numbers at St Bees are quite variable, but even so these figures suggest a substantial reduction in numbers in 2014, with the wreck being the most likely cause. The equivalent figures for the Guillemot were 9,257 individuals in 2014, down 4% on 2013 (in other words well within the normal range of variation) and actually above the mean for the previous five years, suggesting no significant impact.

Acknowledgement

I thank Dave Blackledge and the RSPB for making available the counts of Razorbills and Common Guillemots breeding at St Bees.

References

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- Sellers, R.M. (2014) Mass mortality of Razorbills and other seabirds on the coast of Cumbria in February 2014. *Lakeland Naturalist*, 2: 63-71.

*Robin M. Sellers, Crag House, Ellerslie Park, Gosforth, Cumbria CA20 1BL
e-mail: sellers@craghouse7.freemove.co.uk*

River Eden erosion at Warwick Holme, winter 2015–16

The flooding events of late 2015 and early 2016 had well-documented and severe effects in many parts of the county. Watercourses were frequently overwhelmed, initiating erosion, often on a substantial scale. As in 2005, the Eden immediately downstream of Wetheral temporarily covered the fields to the east of the river – forming an impressive, if short-lived, 'lake'. The Environment Agency's station at this point recorded an all-time maximum flood level there on 6 December 2015 (5.83m above datum). Roadside hedges were over-topped and filled with water-borne debris. Severe erosion occurred on the east bank in particular. Although trees and

boulders variously held the line of the existing east bank, the river scoured out a large 'lagoon' (some 20 metres wide and several times that in length) in the fields beside it, removing huge quantities of material, and just stopping short of breaking back though into the main river. Shingle beds and mud 'cliffs' variously bordered the new feature. (Oystercatchers were already showing much interest in the former when I visited.) Much sand, presumably mainly from this hollow, was deposited across the adjacent fields. Very strong winds in late January began moving this downwind, the hedges forming effective 'dune-stabilisation barriers', filtering the sand, which would otherwise have covered the adjacent road much more deeply than it did. The flotsam filled the full height of the hedges hereabouts, perhaps to prove useful as nest-building material for birds. The exact cause of the formation of the new 'water feature' is unclear: possibly it is partly the result of the breakage of the high capacity drain that flows under the field, softening the subsoil at a point near the upstream end of the 'lagoon'. Plate 9 gives some indication of what is described above. Such changes to the local landscape give a vivid demonstration of the power of the river: it remains to be seen whether further extreme weather will re-form this feature, which already has been substantially infilled to restore agricultural use.

David Clarke, Burnfoot, Cumwhitton, Brampton CA8 9EX

Two white Ravens – the earliest published reference to birds in Cumbria?

In 1544 William Turner published in Latin a slim volume entitled *Avium praecipuarum, quarum apud Plinium et Aristotelem mentio est, brevis et succincta historia* (*A Short and Succinct Account of the Principal Birds Mentioned by Pliny and Aristotle*), often cited as the first printed book to be devoted entirely to birds. As the title suggests it was partly a reworking of earlier material, but contained also much original observation by Turner himself. One aside is of particular interest as it concerns Cumbria. It reads (from the English translation by Evans, 1903):

In the year 1548, in the month of August, I saw two white Ravens from the same nest, and handled them at the very place in Cumberland of our Britain, bred on the property of a lord of that county, and trained for bird-catching just like hawks. For they had been taught both to sit quietly on the arm of the falconer, and when loosed to fly as quickly as possible to his call and sign even from a distance.

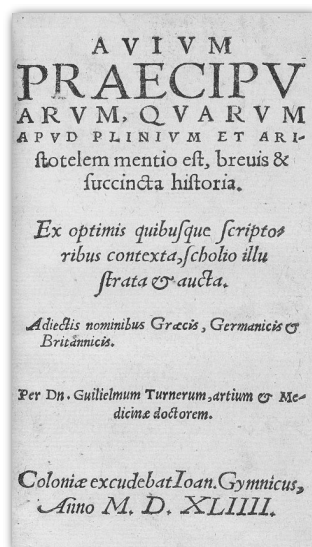
Quite how Turner managed to record an event that apparently took place four years after publication I have not been able to resolve. I can find no evidence that more than one edition of the original was published (see for instance, Mullens & Swann, 1917), and the most likely explanation is that the 1548 date is either a mistake introduced by the person who did the typesetting of the original text or an error inadvertently

introduced by Evans. It is always dangerous to claim ‘firsts’ but, whatever the explanation for this curious inconsistency, it seems that this might be the earliest published reference to birds in Cumbria. The next that I am aware of did not appear until well over a century later, and is contained in *The Ornithology of Francis Willughby* published in Latin in 1676 and two years later in English (Ray, 1678). It refers to Ospreys nesting in Whinfield Park (modern day Whinfell Park), near Penrith.

References

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 Mullens, W.H. & Swann, H.K. (1917) *A Bibliography of British Ornithology*. London: Macmillan & Co, pp. 596-600.
 Ray, J. (1678) *The Ornithology of Francis Willughby*. London: John Martyn, p.21.
 Turner, W. (1544) *Avium praecipuarum, quarum apud Plinium et Aristotelem mentio est, brevis et succincta historia* [A Short and Succinct Account of the Principal Birds Mentioned by Pliny and Aristotle]. Cologne: Gymnicus.

Robin M. Sellers, Crag House, Ellerslie Park, Gosforth, Cumbria CA20 1BL
 e-mail: sellers@craghouse7.freemove.co.uk



Beetles on ‘Wainwrights’ 1970–2015

David Atty

Beckhouse Mill, Embleton, Cockermouth CA13 9TN

The pleasures of fell-walking have been enhanced for me, over many years, by the discovery of various beetles on the tops, whereas to climb up solely to search for insects can be very frustrating. Even on Midsummer Day 2003, for example, only a single species was to be found on Skiddaw above 2600ft.

Table 1 lists montane or moorland beetles, with the maximum altitude at which I’ve found each species, in the seven areas corresponding to the seven books of Wainwright’s *Pictorial Guides to the Lakeland Fells* (1955-1966): North Western, Northern, Eastern, Central, Western, Southern, Far Eastern. The total number of my own records for each species *on the fells*, say above 1200ft, is shown in the first column. All these heights are in feet, not metres, in the spirit of Wainwright (and to accord with the precise data on my record cards and maps). ‘A.W.’ himself noted beetles only once: a swarm of ladybirds (presumably 7-spot) on the summit of Caw, Dunnerdale (one of his ‘Outlying Fells’) in 1972. As will be apparent, this account is biased towards the northern half of Cumbria: much of my walking on the Southern and Far Eastern fells was enjoyed on holidays before 1987, and in early May and October, not the best times for montane beetles. The scientific names of the 77 species listed are in conformity with Duff, 2012.

My criterion for ranking a species as montane is: those beetles which are found regularly, if not exclusively, on higher ground, say above 1200ft. Also included in the list, *in italics*, are some others which can be seen on the fells, but normally occur at lower levels. (Here again the total figure given is only for records at higher levels.) One example is the common black ground beetle *Pterostichus madidus*; its frequent appearance on the tops might be a sign of climate change – though there are old records for Skiddaw and Scafell, at unspecified heights.

Some problems of categorization arise with dung beetles. Many species occur in sheep dung at all elevations, limited only by ovine wanderings. For instance, I’ve found *Aphodius contaminatus* at 2500ft on Grasmoo, *Aphodius depressus* at 2300ft on Brandreth, and the smaller *Cercyon impressus* at 2100 ft on Stybarrow Dodd. Similarly with the smaller coprophagous rove beetles: *Anotylus sculpturatus* at 2400ft on Gavel Pike, or *Dimetrota atramentaria* at 2100ft on Scar Crag. Accordingly, I’ve included only two, more montane, *Aphodius* species.

Likewise with beetles of *Sphagnum* and other mosses: many rove beetles, predatory or otherwise, are found in lowland bogs but also much higher – several *Quedius* species for example. An extreme case was *Philonthus varius*, very common in drier moss at low levels but once found in moss by the cairn on Gategill Fell at

2720ft. The larger predatory *Philonthus marginatus* was once seen at 3030ft on Skiddaw, though on bare ground. A few such species are listed, in italics. For similar reasons I have omitted weevils and plant beetles which feed on heather at moderate elevations (though I once found *Strophosoma sus* on heather at 2250ft on Carl Side).

Of particular interest are the occasional surprises: such as the three *Dascillus cervinus* (the so-called Orchid Beetle – a misnomer) feeding at 2840ft on Blencathra, or the large diving beetle *Dytiscus marginalis* in a pool at 1915ft on Little Calva, or three *Platambus maculatus*, a water beetle of lake margins and running water, in a small tarn at 1750ft on Lank Rigg. But all these, except the last, can fly, unlike the inexplicable freakish occurrences: a wingless *Otiorrhynchus* weevil in moss at 2300ft on Brandreth was not one of the montane species I was hoping for (e.g. *Otiorrhynchus arcticus* which I'd seen at 3480ft on An Teallach) but unmistakably *Otiorrhynchus singularis*, a very common weevil of lowland woods (and destructive of pot plants), normally found below 600ft; or, equally odd, the large flightless ground beetle *Abax ater* at 2580ft on Grisedale Pike.

I have not incorporated records by other coleopterists, not even for those rarities which I've not seen in Cumbria: *Nebria nivalis* at 3200ft on Scafell Pike (mine twice at 3350ft on Liathach, Torridon), or *Leistus montanus* below Pike of Stickle, and on lower hills.

Montane fauna and flora are the species most threatened by climate change. Though it is hard to measure increasing rarity from my records, it may be significant that in 2009 on Skiddaw, I found *Pterostichus madidus*, a large flightless ground beetle, very common at lower levels and in gardens, at 3000 ft, but none of the rarer montane species of previous visits in earlier years.

Reference

Duff, A.G. (Ed.) (2012) *Checklist of beetles of the British Isles*, 2nd edn. Iver: Pemberley Books.

['Wainwrights' in this context are any Lake District hills over 1000 ft high and/or appearing in one of the seven guides published by A. Wainwright, 1955–66. *Ed.*]

Table 1. Beetles from 'Wainwrights' – see text

	DA: total specms	Maximum altitude in each region (ft)						
		NW	N	E	C	W	S	FE
Ground beetles								
<i>Carabus arvensis</i>	5	1600			800		750	
<i>Carabus glabratus</i>	5	2000	3000		1810			
<i>Carabus problematicus</i>	48	2600	3050	2480	600	2600	600	2475
<i>Nebria glynnhali</i>	35	2400	3000	3000	1950	2927	2645	1550
<i>Nebria salina</i>	36	2780	3030	2400	1811	2440		
<i>Notiophilus aestuans</i>	3	2500	2170					
<i>Notiophilus aquaticus</i>	29	2600	2750	3000	1700	2600	800	2500
<i>Notiophilus germiyni</i>	19	2300	2265	2650	2350	2600		2140
<i>Bradycellus ruficollis</i>	10	1700	1800		1150			
<i>Calathus melanocephalus</i>	42	2740	2710	2680		1900		2150
<i>Miscodera arctica</i>	3	2000		2870				
<i>Olisthopus rotundatus</i>	7	2580	1500					
<i>Patrobus assimilis</i>	19	2740	3000	2880	2100	2600		
<i>Pterostichus adstrictus</i>	14	2740	3000	2680	2000	1775		
<i>Pterostichus aethiops</i>	20	2580	2800	2870	2170	2440	2230	1200
<i>Pterostichus diligens</i>	59	2150	2200	2350	2300	2250	1640	1200
<i>Pterostichus madidus</i>	23	1800	3000	2150	1200	1900	1600	1500
<i>Trichocellus cognatus</i>	5	1400	2100			1590		
Diving beetles								
<i>Agabus arcticus</i>	16	2000	2050	2350	2100	2025		
<i>Agabus bipustulatus</i>	30	2200	2300	2348	1800	2025		
<i>Agabus congener</i>	11	1800	2300		2050	2025		
<i>Hydroporus glynnhali</i>	6	1630		2350	1800			1950
<i>Hydroporus morio</i>	14	2000	2050	2100	2050	1700	800	
<i>Hydroporus nigrita</i>	20	2200	2300	2348	2050	2025		2100
<i>Hydroporus obscurus</i>	22	1800	1915	2348	2050	2025	1640	
<i>Hydroporus pubescens</i>	13	2000	2050		1125	2025		
<i>Hydroporus tristis</i>	8		2050		2050	1750		
<i>Ilybius aenescens</i>	9	1800	1956	2100	2050			2100
<i>Rhantus suturellus</i>	11	1600			2050	2025	1400	1950
other water-beetles								
<i>Anacaena globulus</i>	10	2000	1955	2000	1100	1590		
<i>Enochrus affinis</i>	3				2100			
<i>Enochrus fuscipennis</i>	6	1900			2050			1950
<i>Helophorus aequalis</i>	8	1900	2300		1800			
<i>Helophorus flavipes</i>	17	2000	2300	2825	1350	2025		
<i>Helophorus grandis</i>	8	2000	2050		1650	1650		
<i>Hydrobius fuscipes</i>	4				2025	1650	1400	
<i>Gyrinus substriatus</i>	12	1800	2050	2350	2100	1750	1400	

	DA: total specms	Maximum altitude in each region (ft)						
		NW	N	E	C	W	S	FE
Rove beetles								
<i>Acidota crenata</i>	8	2000	3050			1750		2475
<i>Amischa bifoveolata</i>	12	1630	2800	1500	1050			
<i>Anthrophagus alpinus</i>	2					2440		
<i>Arpedium brachypterum</i>	18	2500	3000	2500		2600		
<i>Boreophilina eremita</i>	28	2400	2700	3000	2000	2500	1640	
<i>Cousya longitarsis</i>	1		2000					
<i>Cypha laeviuscula</i>	7	2590	2700	2880		2600		
<i>Geodromicus longipes</i>	1		3000					
<i>Geodromicus nigrita</i>	1					1590		
<i>Geostiba circellaris</i>	12	1700	1600	2870	1200	1700		
<i>Lathrobium fulvipenne</i>	28	2020	3000	3000	2000	1700	2645	
<i>Lathrobium zetterstedti</i>	1			2150				
<i>Lesteva monticola</i>	8	2000	2650	2300	2000		1650	
<i>Liogluta alpestris</i>	3	2500	1300	2350				
<i>Mniusa incrassata</i>	6	1100	2100	2500		2600		
<i>Mycetoporus erichsonanus</i>	1		2710					
<i>Myllaena brevicornis</i>	11	1500	2700	2350	1450	1700		
<i>Olophrum fuscum</i>	8	2300	2260	1190	2000	2000	1640	
<i>Oreostiba tibialis</i>	19	2500	3000	2880	1811	2600	3100	
<i>Othius angustus</i>	17	2500	3000	2870		2425		
<i>Othius myrmecophilus</i>	10		2800		1811	2000	1960	
<i>Othius punctulatus</i>	13	2300	2100	2800		1650		
<i>Oxypoda soror</i>	1		2000					
<i>Oxypoda tirolensis</i>	1		2600					
<i>Philhygra arctica</i>	4	2400		2350	1250			
<i>Philonthus nigrita</i>	6	1350	1600		1800		1640	
<i>Quedius boops</i>	10	2150	1500	2880	1350	2300		
<i>Quedius boopoides</i>	9	2180	1800		1400	2000		
<i>Stenus aceris</i>	11	1830	2100	2300		2600		
<i>Stenus brevipennis</i>	3		3000	2880				
<i>Stenus geniculatus</i>	3		3000	2500		2300		
<i>Syntomium aeneum</i>	3	1300	3000					
Dung beetles								
<i>Geotrupes stercorosus</i>	21	1500	2150	2600	1700	1700	1800	2000
<i>Aphodius fasciatus</i>	1				1750			
<i>Aphodius lapponum</i>	20	2100	2100	2870	1500	2100		2500
Pill beetles								
<i>Byrrhus arietinus</i>	9	2250	3000	3050		2300		
<i>Byrrhus pilula</i>	6	2150	2700	2800		2685		
Click beetles								
<i>Hypnoidus riparius</i>	88	2525	3000	3050	2300	2685	2550	2630
<i>Ctenicera cuprea</i>	27	2050	2840	2500	2300	2300	2400	
Scirtid beetles								
<i>Cyphon kongsbergensis</i>	2			2100		1725		

Bat research at the RSPB Geltsdale reserve, Cumbria

Tina Wiffen

Stagsike Cottages, Hallbankgate, Brampton, Cumbria CA8 1PY

malinka1999@btinternet.com

The Royal Society for the Protection of Birds' Geltsdale reserve is an important nature reserve on the north-west edge of the Cumbria Pennines. It is noted for Black Grouse, breeding waders and Whinchat. However, not all of the research is bird-focused. The importance of the reserve for bats has emerged in recent years: this short report outlines the current bat research being undertaken by me within the reserve.

Bat activity surveys, using both zero-crossing and time-expansion bat detectors, were undertaken at Binney Bank, Geltsdale in July, August and September 2012. These surveys confirmed the presence of *Myotis* species, Common Pipistrelle (*Pipistrellus pipistrellus*) and Soprano Pipistrelle (*P. pygmaeus*), flying and foraging within the woodland. Sound analysis of the bat calls using 'Analook' and 'Bat Sound' software suggested that the *Myotis* species present include Daubenton's Bat (*Myotis daubentonii*) and Natterer's Bat (*M. nattereri*). In addition, two bat passes were recorded that were indicative of Leisler's Bat (*Nyctalus leisleri*). This is an uncommon bat in Cumbria.

Following on from this survey work, a static bat detector was placed at Clowsgill lime kiln and Tottergill lime kiln (plate 6) in October 2012. At Clowsgill, *Myotis* species and Common Pipistrelle were recorded. At Tottergill lime kiln over 4,900 bat call files were recorded during the night of 9–10 October 2012. Sound analysis of bat calls identified *Myotis* species, Common and Soprano Pipistrelle flying around the kiln, analysis of time-expansion calls identified some of the *Myotis* species calls as Natterer's Bat. *Myotis* species were observed flying within the lime kiln on 13 October 2012, and it is thought that this kiln maybe an important swarming site and potential hibernaculum. Swarming takes place in autumn, from late July to October, and is characterised by bats flying in and out of underground sites. Swarming is known to be an important function of mating and gene flow in *Myotis* and *Plecotus* species bats (Glover & Altringham, 2008).

Based on the high levels of bat activity around Tottergill lime kiln, a research project has been set up to try to understand how the bats are using this kiln in autumn. A total of 105 bats of seven species has been caught under licence between 2013 and 2015.

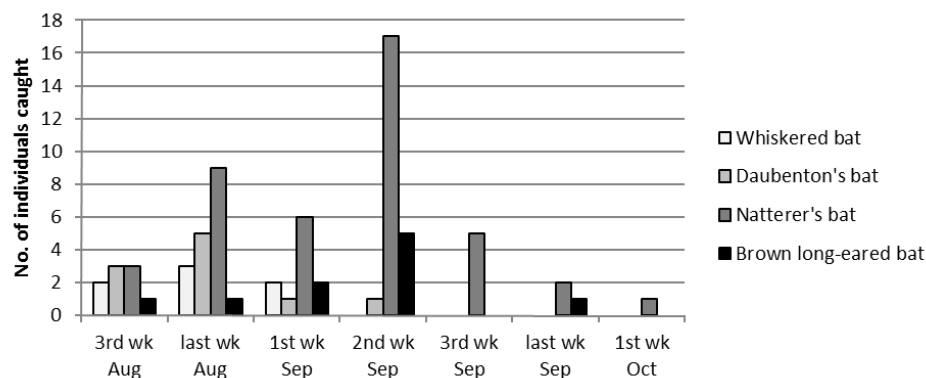
Natterer's Bat is the most numerous species caught, with 36 individuals ringed. Four ringed bats have been re-trapped. Notable re-captures include Y4927, an adult male ringed on 14 September 2013 and then caught roosting in the kiln on 29 September 2014 and again on 26 September 2015 and Y4948, an adult male ringed

on 4 October 2013 and re-trapped in the kiln on 31 August 2015. Ten Natterer's Bats have been recorded roosting within the kiln on survey nights, with three bats present in the kiln on 17 September 2014.

Seven Whiskered Bats (*M. mystacinus*) and nine Daubenton's Bats have also been caught and ringed at the kiln. These bats are present earlier in the trapping period than the Natterer's Bat, with activity tailing off by early September. Additionally, ten Brown Long-eared Bats (*Plecotus auritus*) have been caught at the kiln entrance.

Noctule (*Nyctalus noctula*), Common and Soprano Pipistrelle have also been caught at this site, with both Common and Soprano Pipistrelle caught entering the kiln.

No. of bats caught per week at Tottergill: 2013-2015



On 10 November 2015 a ringed Natterer's Bat was found deep in a crevice in the kiln. The last digit of the ring could be read, narrowing this bat down to one of three individuals, all male, two first caught in September 2014 and one in August 2015. This is the first bat that has been seen in daytime roosting within the kiln structure. For further details of the bat research at Tottergill see Wiffen, 2016.

Whilst most of the research has focused on the lime kiln at Tottergill, other important discoveries have been made elsewhere within the reserve.

One of the farmhouses on the reserve was surveyed for bats in 2013 and bat droppings were found in the loft. DNA analysis confirmed presence of a Whiskered Bat roost, the only known roost for this species on the reserve, and at the time the first record for RSPB Geltsdale.

In 2014 a single Brown Long-eared Bat was found hibernating in a culvert under the railway tunnel – see plate 7 (which shows the ears folded back, exposing prominent tragi). This individual was found during a hibernation survey in January and was still present in March. This species had not previously been recorded roosting on the

reserve. It was not present during winter 2014–15 but was recorded again in January 2016.

In 2015 the RSPB acquired land at Forest Head, including a large four-pot lime kiln. This kiln is used by roosting bats, with three Natterer's Bat present on 22 June 2015 and two present on two dates in November. Passive bat detector surveys have recorded Daubenton's Bat, Natterer's Bat, Noctule, Common and Soprano Pipistrelle in the vicinity of the kiln. Based on the survey work to date, this site could be on a par with Tottergill lime kiln for bat interest; more work is planned there in 2016.

In 2015, the RSPB also acquired Cleskett Holme, a ruined farmhouse in lowland pasture. A passive detector recorded *Myotis* species, *Nyctalus* species, Common and Soprano Pipistrelle activity around the ruin, with a noticeable increase in Common Pipistrelle activity in late September. More research is needed to understand how bats use this building.

Thus, while the reserve is known for its birdlife, the bat use of this area is significant; Tottergill lime kiln is the only known bat swarming site in Cumbria, and the bat use of such upland sites remains poorly understood. Seven species of bat have been recorded at Geltsdale, with four species roosting and/or hibernating within the reserve.

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Acknowledgements

My thanks to the RSPB for supporting this study and to Adam Moan for photographic support for my work.

Grey Seal (*Halichoerus grypus*) pups at South Walney Nature Reserve

Dr Emily Baxter, Marine Conservation Officer

Cumbria Wildlife Trust, Plumgarths, Crook Road, Kendal, LA8 8LX

A Grey Seal pup was first discovered at South Walney Nature Reserve, Walney Island, by staff from Cumbria Wildlife Trust on 7 November 2015. The seals have been using the protected beaches to haul out and rest South Walney Nature Reserve for decades, but there are no previous records of births there – or elsewhere on the Cumbria coast.* The pup was approximately three to four days old when first found and the mother is likely to have been an inexperienced, first-time parent that regularly uses the beaches at South Walney as a haul-out site. It was initially thought that this might be a ‘one-off’ occurrence. However, just a couple of weeks later a second pup was born on the Reserve (plate 8).

Unlike pups of the Harbour or Common Seal (*Phoca vitulina*), those of Grey Seals are born with thick white fur and are not able to swim very well at first. This makes it highly likely that the pups were born on the island. The pups spent around three to four weeks on the island before moulting their fluffy white natal coats and heading out to sea to fend for themselves but staying in the local area of the Reserve.

During the 1970s and 80s, Grey Seals were seen only singly around Walney Island. Since then their numbers have increased, with over 100 individuals now regularly recorded on and around the island at certain times of the year. Figure 1 shows the numbers of recorded in recent years.

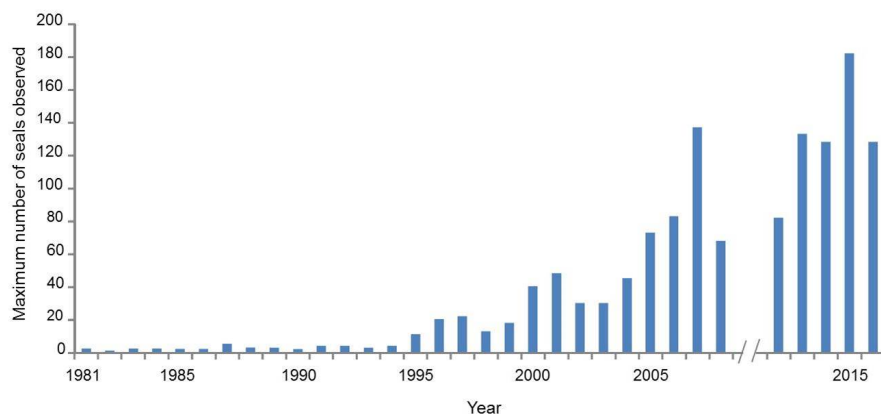


Figure 1. Grey Seal numbers at South Walney Nature Reserve 1981 to present

Grey Seals have an annual, synchronous breeding cycle and females give birth in the autumn to a single pup at the same time each year. They usually return to their own place of birth to breed year on year in the same location. Towards the end of the weaning period they will mate again. It is thus possible that the two mothers may choose to come back to pup again in 2016. Furthermore, if the pups are female they too may return to pup here in the future when they mature. Whether South Walney Nature Reserve will become an established pupping site and breeding colony remains to be seen.

Approximately 38% of the world's Grey Seals breed around the UK forming part of the reproductively isolated population in the north-east Atlantic. Since the end of legal hunting in the UK in the late 1970s, Grey Seal numbers have recovered, and the number of pups born increased at a rate of 6% per year in the 1980s and 90s. In more recent years the rate of increase has slowed. There are a lot of unanswered questions over if and/or why the colony on South Walney Nature Reserve has started to breed. The Trust will be observing the colony over the coming years to find out more. To help with this it is in the process of installing two high definition cameras to capture activity at the seal haul-out site. One will be on Haws Point Spit where the seals spend much of their time and the other will be on located on Groyne Hide to capture seal activity at high tide. It is hoped that the cameras will soon be streaming live on the Trust's website.

The seal surveys on South Walney were initiated by a volunteer group more than a decade ago. For the past five years, surveys have been carried out every two to four weeks between September and March by trainees from Cumbria and Lancashire Wildlife Trusts' Marine and Coastal Heritage Programme, funded by the Heritage Lottery Fund.

* Gary Hedges has kindly checked Cumbria Biodiversity Data Centre records and historical sources: interestingly, H.A. Macpherson's authoritative *A Vertebrate Fauna of Lakeland* (1892) contains no mention of the Grey Seal.

The history of the identification of the 'Iceland Redshank' *Tringa totanus robusta* (Schiøler, 1919) as a Cumbrian bird

Robin M. Sellers

Crag House, Ellerslie Park, Gosforth, Cumbria CA20 1BL

e-mail: sellers@craghouse7.freemove.co.uk

Two subspecies of the Redshank (*Tringa totanus* (Linnaeus, 1758)) occur in Britain, nominate *totanus*, the form which breeds in Britain, Ireland and much of continental Europe, and *robusta*, that found in Iceland and the Faeroes, and sometimes referred to as the Iceland Redshank, (Harrop *et al.*, 2013; Cramp & Simmons, 1982). The two differ slightly as to plumage in the breeding season, but in winter their external appearance is identical for all practical purposes (Cramp & Simmons, 1982) and other means have to be used to distinguish between the two.

The two subspecies differ slightly in size, *robusta* being the larger of the two, but there is much overlap in the characteristics commonly used to assess body size such as wing, tail, bill and tarsus length. The following is a list of the critical values of these four measures for distinguishing between nominate *totanus* and *robusta* based on measurements of museum skins quoted in Cramp & Simmons, 1982.

Males: *T. t. robusta* if wing length >168 mm, tail length >72 mm, bill length >41 mm and tarsus length >49 mm.

Females: *T. t. robusta* if wing length >172 mm, tail length >76 mm, bill length >44 mm and tarsus length >51 mm.

It should be emphasised that these figures are based on modest sample sizes and can at best give only an approximate indication of the values that have to be exceeded to be certain that any individual bird is indeed an Iceland Redshank.

The first published indication that Iceland Redshanks occur in Cumbria is contained in a note published in *British Birds* and refers to a specimen collected at Megazine Scar off Barrow-in-Furness in what was then Lancashire on 21 October 1933 (Coombes, 1935). The bird was an adult female and appears to have been identified as *robusta* primarily on the strength of its wing, tail and bill lengths. Coombes also noted that he was 'able to compare it in the flesh with thirteen Common Redshanks [i.e. birds of the nominate subspecies] which were shot the same day... and this bird appeared greyer: but... not darker above or more streaked below than average adult specimens of the Common Redshank.' The skin was also examined by H. F. Witherby who confirmed the identification.

A second Iceland Redshank is mentioned by Blezard *et al.*, 1943. This bird, a male,

had been shot on the Cumbrian side of the Solway Firth on 16 December 1904. Its identification was confirmed by G.C. Low of the Natural History Museum, London in the following words (Low, 1938): 'The Redshank sent up for identification is an Iceland Redshank (*Tringa totanus robusta*). That it is a Redshank and not a Dusky Redshank is shown by its white secondaries. The wing 163 mm is large and brings it into the range of *T. t. robusta* and the time of year it was obtained is also correct. The very dark colour is principally due to dirt.' The skin now exists as a mounted specimen in Tullie House Museum.

Several other skins in the Tullie House collection are labelled as Iceland Redshanks. These, together with the records described in the previous two paragraphs, are listed below in the order in which they were taken (though this is not necessarily the sequence in which they were identified as being Iceland Redshanks).

	WL*	TL*	BL*	TS*
(1) Rockcliffe, 11 Mar 1884, ♂	167	67	-	-
(2) Skinburness, 31 Dec 1884, ♀	164	62	-	-
(3) Cumberland Solway, 16 Dec 1904, ♂	163†	-	-	-
(4) Barrow-in-Furness, 21 Oct 1933, ad ♀	169§	-	43	52
(5) Allonby, 22 Sep 1956, ♀	168	56	44	-
(6) R. Wampool, Newton, 27 Jan 1963, ♀	168	65	43	-

* WL, wing length; TL, tail length; BL, bill length; TS, tarsus length; all measurements in mm.

† Based on measurement quoted in letter from Low to Blezard quote above.

§ Note that the wing length measured by Coombes when the bird was freshly dead was 171 mm; skins shrink with age and the figure quoted is an estimate of the likely figure allowing for shrinkage.

The only figure here that exceeds the critical values listed above is that for tarsus length in the Barrow-in-Furness bird – but it exceeds the critical value by just 1 mm and is not a sound demonstration that the bird was in fact an Iceland Redshank. None of the other biometric data provide convincing evidence for its occurrence in the county. All are close to the upper limit of nominate *totanus* birds, and may be Iceland Redshanks, but these data do not establish unequivocally that that is so.

A more sophisticated approach to the analysis of Redshank biometric data has been used by Hale (1973). In this he took five measures of body size (wing, tail, bill, tarsus length and tarsus width) and combined them to determine the most likely area that individual wintering birds came from (there is good summary of the method in Hale (1980). This works well when applied to populations and makes it possible to estimate what percentage of the birds is likely to be nominate *totanus* or *robusta*, for instance.

It is less satisfactory at the level of the individual bird since formally it only indicates the likelihood that a certain bird is one subspecies or the other. Hale shows a number of Iceland Redshanks as occurring in Cumbria, but regrettably no details of individual birds are available. Skins in the Tullie House collection did form part of Hale's investigation (D. Clarke, pers. comm.) and presumably include those listed above. However, whilst strongly indicative, they do not formally provide a single, undoubted record of an Iceland Redshank in Cumbria.

In many ways the biometric approach is now somewhat academic, as ringing recoveries, mainly generated since the 1970s, establish unequivocally that Iceland Redshanks do occur in Cumbria. To the end of 2014 there had been 13 interchanges between Cumbria and Iceland – seven recoveries in Iceland of birds ringed in Cumbria and six of birds ringed in Iceland that had been found in Cumbria (Robinson *et al.*, 2015). A selection of these is given below:

(ISR) 618803	4	25 May 1971	Gardsskagi, Midnes, Iceland
	R	25 Oct 1976	Biggar Bank, Walney Island, Cumbria
(ISR) 619467	3	25 Jul 1972	Hanarsfjordur, Iceland
	R	25 Oct 1973	South-east Point, Walney Island, Cumbria
	R	14 Feb 1976	Sheep Island, Walney Island, Cumbria
DS5715_	4	26 Mar 1970	Newbiggin, Barrow-in-Furness, Cumbria
	X	17 Jun 1981	Kopavogur, Gullbringn, Iceland
DS88923	4	18 Oct 1978	Hodbarrow, Millom, Cumbria
	X	10 Jun 1988	Skorradalur, Borg, Iceland (hit by car)

The second column, first row shows the age on ringing: 3 = first-year; 4 = adult; second and third rows show details of subsequent handlings: R = trapped; X = dead). ISR is the code for the Icelandic Ringing Scheme.

From these recoveries it can be deduced that Iceland Redshanks occur in Cumbria typically between October (earliest record 18th) and March (latest record 26th).

Conclusions

The often quoted biometric evidence for the occurrence of Iceland Redshanks in Cumbria is unsound and does not provide adequate justification that this subspecies can be found in the county. The evidence from ringing, on the other hand, is unequivocal.

Acknowledgements

I am indebted to Stephen Hewitt and Tullie House Museum for allowing me access to the museum's collection of Redshank skins, to Stephen White of Carlisle Library for drawing G.C. Low's letter to E. Blezard to my attention, to David Clarke for information about Hale's use of the Tullie House skin collection, and to Jack Sheldon for making available some of the ringing recoveries.

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Appendix 1. Reference data for skins of *T. t. robusta* in Tullie House Museum

- (1) Skin No.36-1984.130, ♂, Rockcliffe, 11 March 1884, H.A. Macpherson.
- (2) Skin No.36-1984.131, ♀, Skinburness, 31 December 1884, H.A. Macpherson.
- (3) Mounted specimen, ♂, Cumberland Solway, 16 December 1904, W. Nichol.
- (4) Skin: whereabouts unknown, ♀, Barrow-in-Furness, 21 October 1933, R.A.H. Coombes.
- (5) Skin No.63-1956, ♀, Allonby, 22 September 1956, H. Potter.
- (6) Skin No.7-1963, ♀, R. Wampool, Newton, 27 January 1963, J. Harrison.

Bibliography of Cumbrian Natural History: a unique research resource from CNHS

Ever since 2007, ex-librarian Allen Armsby has been labouring voluntarily to find references to all published work about the flora and fauna of the county, and its naturalists, from earliest known times. This of course includes everything that has appeared under the auspices of this Society. The accumulated total is now estimated at over 26,000 entries!

Anyone (non-members included) wishing to access this rich resource can do so by going to the Society's website www.carlisenats.org.uk. The Bibliography appears in the list of publications at the top RHS of the home page. A PDF version can be downloaded. It is a text document, listing titles in alphabetical order of authors' names, and then by date.

Use Ctrl-F to bring up a search box or the search facility in the Edit menu of Adobe Reader. The file size is approximately 9Mb. It can be searched by author if made case-sensitive (CAPITALS). A non case-sensitive search can be used to find any person or species that appears in the document. Allen has also introduced a useful range of subject keywords and other comments in square brackets following the references, which can be used to speed searches. The main categories are: Amphibians, Bibliographies, Biography, Birds, Climate, Coast & Estuaries, Conifers, Crustacean, Ecology, Ferns, Fish, Flora, Forests, Fossils, Fungi, Geology, Insects, Lakes & Tarns, Lichens, Mammals, Marine, Marine Mammals, Marsh & Mires, Molluscs, Moorland & Upland, Moss, Mountains, Nature Reserves, Obituary, Pollution, Ponds, Raptors, Reptiles, Rivers & Streams, Spiders, Trees, Woodland.

As Allen himself admits, there is still much to find, and to enter – so the project is ongoing and there will be updates at approximately annual intervals. He will always be pleased to receive details of publications to be included, and any comments or amendments to existing entries. Email: mail@armsby90.freemove.co.uk

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- ADAMS, A. E.**



Announcements

Editor's remarks

The current issue includes two first-time contributors, which is very much in keeping with our aim to broaden the range of subject matter, and to represent the study of natural history in all parts of the county.

AGM 2 March 2016

The Society officers and Council were re-elected to serve for a further year, with the exceptions of Teresa Frost who has moved away and Roy Atkins, who has resigned due to workload. Gary Hedges has agreed to take over Teresa's role of Communications Officer. Stuart Colgate was elected to Council.

David Clarke was elected a Life Member of the Society in recognition of his dedicated service to the Society over many years. He joins Geoff Horne as the only other Life Member.

The Society has enjoyed a successful year with consistently good attendances for an excellent programme of winter lectures and the summer field meetings, only slightly impacted by poor weather. The number of subscribing members remains stable, with a welcome increase in the number of direct subscriptions to *Lakeland Naturalist*. It was agreed that subscription rates for 2016/17 will remain unchanged from the previous year, but may have to rise in 2017/18.

PDFs of all back issues of *Carlisle Naturalist* and *Lakeland Naturalist* will be posted on the Society's website two years after their publication date. Contents pages of recent issues of *Lakeland Naturalist* will be posted on the website as each issue is published. The backlog of previous issues is to be made available online in the next few months. We are very grateful to Moustafa Eweda at CBDC for preparing these for us.

The Miltonrigg Wood survey (commemorating Geoff Naylor) has been completed and the report will be available in hard copy at Tullie House and via the Society's website.

Tullie House Museum, Castle St, Carlisle CA3 8TP remains the Society's postal address. Simon Jackson is our contact there. We are grateful to him for much assistance at winter meetings too.

Carlisle NHS officers and Council 2016/17

President: Stephen Hewitt

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Assistant Secretary: Mike Abbs

Recorder: Frank Mawby, 'Wayside', Kirkbride, Wigton CA7 5JR: recorder@carlisenats.org.uk
mob: 07970206164

Editor: David Clarke david.clarke19@virgin.net

Communications Officer: Gary Hedges recordingofficer@cbdc.org.uk

Council: Sam Griffin, Stuart Colgate, Robin Hodgson, Dorothy Iveson, Russell Gomm

*Remember that Full Members may participate in our active Facebook group for topical wildlife discussion and news. Just log on to Facebook and search for **Carlisle Nats** in 'groups' and click on 'join group' or go to <http://www.facebook.com/groups/CarlisleNats>*

Cumbria Biodiversity Data Centre

The new Manager Deborah Muscat is now well-established and we look forward to continuing the excellent working relationship with the CBDC team under her guidance.

See the Events Calendar on the CBDC website www.cbdc.org.uk for many events around the county.