

Whitby Naturalists' Club



Annual Report 2014

WHITBY NATURALISTS' CLUB

President: The Marquis of Normanby

ANNUAL REPORT 2014

CONTENTS

Officers and Executive Committee Elected Members	2
Sub-committee Chairs and Honorary Posts	2
Recorders	3
Chairman's Report	4
Secretary's Report	6
Membership Secretary's Report	7
Lecture Programme Organizer's Report	8
Treasurer's Report	9
Income and Expenditure Accounts	10
Field Meetings and Workshops Report	12
Less Mobile Group Report	14
Archivist & Librarian's Report	15
Affiliations & Magazines	15
Amphibian & Reptile Recorder's Report	16
Mammal Recorder's Report	17
Plant Recorder's Report	19
Geology Recorder's Report	20
Archaeology Recorder's Report	21
Bird Recorder's Report	22
Sea & Shore Life Recorder's Report	35
Fungi Recorder's Report	37
Lepidoptera Recorder's Report	40
Other Insects Recorder's Report	41
Other Invertebrates Recorder's Report	44
Local History Recorder's Report	45
Weather Recorder's Report	47
Microbes & Protists Recorder's Report	48
Freshwater Fish Recorder's Report	50
Report of the Conservation Subcommittee	51
Alum & Ammonites: the Life of Lewis (Louis) Hunton, 1814–1838	52

OFFICERS

Chairman	Dr D.W. Minter
Vice-Chairman	Mr A.W. Ritson
General Secretary	Mrs C.R. Harwood
Treasurer	Mrs M. Heald
Membership Secretary	Mr M. Barrett
Committee Secretary	Mrs C.R. Harwood
Lecture Programme Organiser	Mr M. Barrett
Archivist & Librarian	Mrs J. Dawson

EXECUTIVE COMMITTEE ELECTED MEMBERS

Retiring 2015	Mrs M. Cooke Mrs M. Heald Mr M. Yates
Retiring 2016	Mrs W. English Dr J. Snape
Retiring 2017	Mr M. Carroll Mr G. Oliver Mrs L. Smith

SUB-COMMITTEE CHAIRS

Biodiversity	Mr A.W. Ritson
Conservation	Mr A.W. Ritson
Field Meetings & Workshops	Mrs W. English
Special Events Planning	Dr J. Pottas

HONORARY POSTS

Auditor	Mr B.H. Nelson
Circulation of Magazines	Mrs J. Dawson
Education & Outreach	Vacant
Herbarium Keeper	Mr M. Yates
Publicity	Vacant
Webmaster	Dr D.W. Minter

RECORDERS

Amphibia & Reptiles	Mrs V.J. Harwood
Archaeology	Rev. B. Williams
Birds	Mr J. McEachen
Freshwater Fish	Vacant
Fungi	Dr D.W. Minter
Geology	Mr M. Windle
Insects [Lepidoptera]	Mr G. Featherstone
Insects [other]	Mr A.W. Ritson
Local History	Mr M.J. Yates
Mammals	Ms W. Rayment
Microbes & Protists	Dr D.W. Minter
Other Invertebrates	Mr A.W. Ritson
Plants	Mrs W. English
Sea & Shore Life	Dr J. Pottas
Weather	Mr P. Wallace

Changes to coverage by Club Recorders

This year the groups covered by Club Recorders has increased. There are now two Insect Recorders. Graham Featherstone, covers Lepidoptera (butterflies and moths); Alan Ritson, covers all other insects. In the past, for want of an alternative, the Insect Recorder also covered on an ad hoc basis all other freshwater and terrestrial invertebrates (for example centipedes, earthworms, slugs, snails, spiders and woodlice). Now, Alan Ritson has bravely indicated that he is prepared to cover these animals under the formal title of Other Invertebrates Recorder.

In the past, similarly, the Fungi Recorder covered various microbes and protists, such as chromistans and myxomycetes. This year, the Club has recognized the need for a Microbes & Protists Recorder to cover these organisms which are totally unrelated to fungi, and David Minter is currently filling that position.

Finally, another long-standing gap in coverage has been identified, and the Club has set up the position of Freshwater Fish Recorder. At present, that post is vacant. Anyone willing to be the first Recorder in this new category should contact Alan Ritson, Chair of the Biodiversity Subcommittee.

CHAIRMAN'S REPORT

This past year, 2014, was the first in a new century for the Club. After the celebrations of 2013, it was time for us to start building the Club's future. I want to thank everybody involved in that task, beginning with you, the Members. Without you, the Club would not exist. Your enthusiasm, support, participation in meetings, and contribution of expertise, observations and records collectively forms the Club's life-blood. It is also a pleasure to thank Club Officers, Committee Members, and Recorders for the work they do.

In addition to his able contributions as Vice-Chair, Alan Ritson led the Club's Biodiversity and Conservation Subcommittees. Ruth Harwood quietly and efficiently worked as Secretary and Committee Secretary (and it has been a pleasure to edit this report with her). Margaret Heald, as Treasurer, ensured Club finances are in good order. Michael Barrett continued to make superb contributions as Membership Secretary and Organizer of our excellent Lecture Programme (I am sorry he has asked to step down from this post which he fulfilled so well for so long). Jean Dawson, as Archivist & Librarian, maintained the Club's books, journals, papers and other resources.

Wendy English, Alan Ritson and others organized a wonderful programme of outdoor events and indoor workshops. My personal favourites were the roosting bats in Lealholm, the nightjars near May Beck, and the badgers enjoying peanut butter and honey sandwiches in Ravenscar! By setting up an excellent series of excursions, Mike Yates ensured the Club's less mobile Members did not miss out. Mike also kindly organized a display of Club archives at a gathering in Whitby Library during the year. There was also a re-run of the Club's photography competition, which is clearly becoming increasingly popular, and will, I hope, become an annual event.

Various people have done many other jobs for the Club. I cannot list them all, but must highlight organizing the Club's annual lunch, efforts to publicise the Club in the local press, participation in Pannett Park open day (an event made remarkable by the unexpected sighting of two cranes high above the Club's stand), and circulation of magazines received by the Club. Whether highlighted or not, I am grateful to all of you for all of those jobs. I must also thank the Club's Auditor, Bernard Nelson, who has checked our accounts for many years. He has announced that he wishes to step down at the end of this year, and with great reluctance his retirement has been accepted.

A Special Events Subcommittee led by Jane Pottas has been looking at ways for the Club to build on centenary year successes. Pleasingly, there is no shortage of ideas. This Subcommittee's job is to kick them around, and see which survive. At present, another exhibition is being considered. One possible theme is seaweeds. If that can be made real, it would be great! It would put the spotlight on another huge and important group of organisms which are overlooked by the country's museums of natural history. With an extensive collection of exhibition panels about seaweeds, in addition to those we already have for fungi, the Club would be preparing the way for a museum of the diversity of life, something this country needs but lacks, and something we could play a leading role in setting up.

Another idea which was originally explored in the run up to the Club's centenary, is to establish links with naturalists in other places connected with Whitby. There are many to choose from, given that Whitby is twinned with Port Stanley in the Falklands, with Tonga, and with other places visited by Captain Cook. That idea took a step closer to reality in 2014 when I received an e-mail from St Helena exploring the possibility of exactly that sort of link. Whitby is not currently twinned with St Helena, but there is a link anyway because Captain Cook visited it at least twice. During summer 2014, one of the naturalists living on St Helena visited Whitby as part of a longer trip to the UK. Several Club Members met her, and we were able to start exploring ways to collaborate in recording the island's biological treasures. The Captain Cook connexion has also spurred the Special Events Subcommittee to look at the possibility of another Club symposium, this time devoted to that great man's explorations and discoveries. It will be interesting to see which of all these ideas is eventually realized.

Finally, the Club's Recorders have provided focal points for an astonishingly wide range of natural history studies. We welcomed Valerie Harwood this year as the new Recorder for Amphibians & Reptiles, and there was some reorganization and extension of coverage by other Recorders. The result of this was that Graham Featherstone kindly took up the new role of Recorder for Insects [Lepidoptera] while Alan Ritson agreed to be both Recorder for Insects [other] (a huge group) and Recorder for Other Invertebrates (perhaps even more of a huge job). At the end of this year, Barrie Williams announced that he wished to relinquish the post of Archaeology Recorder, and we are very fortunate that Christiane Kroebel has agreed to take up this

position. Similarly, Wendy Rayment is standing down as Mammals Recorder after many years, and Jeremy Snape has kindly agreed to fill this post. My profound thanks go to all of you!

David Minter

SECRETARY'S REPORT

2014 has been slightly quieter than the Centenary year of 2013, but varied and busy even so, with plenty going on as can be seen from this Report. I wholeheartedly second the Chairman in the thanks he has expressed to all those who have contributed to the Club's continuing success this year.

As the one responsible for putting together the Annual Report, I would particularly like to thank all the Officers and Recorders who have contributed their reports so efficiently and graciously, even when unexpectedly presented with extra requests. Wendy English, for example, produced the comprehensive report on the outdoor activities and workshops at short notice.

Special thanks are also due to Barrie Williams who retires this year as Archaeology Recorder and Wendy Rayment who retires as Mammals Recorder. I, for one, will miss Barrie's concise informative summaries of items of local archaeological interest as well as those from further afield that he drew to our attention. I will also be sorry not to be reading Wendy's thoughtful and distinctive comments on matters relating to our local mammal wildlife any longer. Special thanks also to the Club's longstanding Auditor, Bernard Nelson who is also retiring this year. Please do not miss the Treasurer's charming tribute to him in her report.

My grateful thanks are also due to those who have stepped in to help me out from time to time this year: Wendy English for much unstinting and unobtrusive help with publicity; Laura Smith for taking minutes for me in my absence; and Margaret Cooke for her invaluable help in organising social events like the Annual Lunch. Thank you all.

Finally, thanks to our Chairman, David Minter, whose enthusiasm and vision has become so important to the continuing success of the Club. While continuing to fulfil commitments as principal scientist of CABI and President of the European Mycological Association, he has devoted much time to our

Club, from exploring exciting new possibilities like a link with St Helena to other more mundane but important tasks like looking after the website and helping edit this report. The Club also has him to thank for successfully reinventing the Photography Competition. How he finds time for these tasks, not forgetting his contribution as Fungi Recorder, I have no idea, but I trust he understands how grateful the Club is for all he does.

Ruth Harwood

MEMBERSHIP SECRETARY'S REPORT

In 2014, all membership contact details were checked and records updated. Between 31 October 2013 and 31 December 2014 we have welcomed 29 new members, 12 have resigned, 20 have allowed membership to lapse and, sadly, 2 have died.

Membership statistics:

- 194 Members on 31 December 2014 (compared with 199 on 31 October 2013).
- Ordinary members 176, Honorary members 14, Junior members 3, President 1.
- Length of membership

Period of membership in years	No of members (December 2014)	No of members (October 2013)
0 - 5	106	97
6 - 10	17	27
11 - 15	24	29
16 - 20	11	18
21 - 25	16	20
26 - 30	11	4
More than 30 years	9	4

Please remember that the annual subscription was due on 1 January 2015 with the exception of Members who joined after 31 October 2014. Your prompt payment will be appreciated.

Mike Barrett

LECTURE PROGRAMME ORGANIZER'S REPORT

The 2014 / 2015 programme started on 18 October and is now well underway, with 15 lectures on a very varied range of topics. The late start was due to an extended programme of field events and workshops carrying over to mid-October. The 2014 sessions terminated on 6 December. The 2015 session started on 10 January and comes to completion on 28 February.

The total cost of the lecture programme, primarily travel expenses, is around £140.00. The Club appreciates the generous donation of time that all speakers freely give. Due to rising costs across the Club, the invited contribution from those attending Saturday lectures has been increased from £0.50 to £1.00 for Members and from £1.00 to £2.00 for visitors.

Mike Barrett

List of Lectures Given in 2014

11 January	Forensic Archaeology - Television CSI to Reality	David Dance
18 January	Ring Ouzels of the North York Moors	Ken Hutchinson
25 January	Tales from the Crypt - Unlocking the secrets of the Seaweed Collection at the Natural History Museum, London	Jane Pottas
1 February	The Microscopic World	Andrew Davis
15 February	Mosses and Liverworts - the Colonisers	Alan Ritson
22 February	Fungal Conservation	David Minter
18 October	A Fossil History of Plants	David Smith
25 October	A Journey to the Northern Sky	David Perry
1 November	Fylingdales Moor - a Special Place	Chris Hansell
8 November	Changes in the Distribution of Marine Species as Indicators of Climate Change	Jane Pottas
15 November	Monitoring Populations of the Spruce Sawfly in Central Wales	David Minter
22 November	Skydancer - Hope for Hen Harriers in Northern England	Anna McWilliams
29 November	Recorders' Reports	Recorders
6 December	The Bombardment of Whitby in 1914	Mike Yates

TREASURER'S REPORT

I have set out my report differently this year to make clearer what has happened within each fund. In previous years the Reserve Fund and the Current Account have been combined. I found this confusing, especially when transfers have occurred between the two funds. I also felt that more detailed explanation should be given of the management of the Centenary Fund. I apologise if I have overloaded you with figures and hope I have not confused you completely. Before comparing figures with last year's, please bear in mind that the period covered by this report is two months longer than usual because the dates of the financial year have changed.

£50 was transferred from the Current to the Centenary Account, as that latter account paid for printing last year's Annual Report (£764.40); £300 was transferred from the Reserve to the Current Account when funds were running low. If that transfer had not happened, and if the report had had to be paid for from Current Account, there would have been a serious deficit. These considerations and rising costs in many areas prompted the prudent decision to increase the membership fee and the invited contributions for attending lectures. Regarding income, the increased door takings are explained by the longer accounting period and that increase in invited contributions. The slight decrease in membership fees results from a drop in membership numbers.

On the expenditure front, lecture fees have dropped thanks to the Lecture Programme Organiser's efforts, subscriptions to societies have been pruned slightly, and website costs have reduced. The large figure paid to the Literary & Philosophical Society represents two years' contributions (currently a £200 donation each year for the use of the Normanby Room) paid during one financial year. The £57.12 represents costs left over from the Centenary Exhibition. Costs of stationery and postage have doubled.

The Club's financial position seems healthy.

Finally I would like to point out that these accounts have been audited for the last time by Mr Bernard Nelson, who is retiring from this post after many years. His cheerful and conscientious assistance has been invaluable and I, personally, am most grateful to him.

Margaret Heald

ACCOUNTS FOR THE YEAR ENDING 31 DECEMBER 2014

INCOME

CURRENT ACCOUNT

2013	Item	2014
	Balance brought forward	227.60
375.95	Door takings	530.20
1205.50	Subscriptions	1054.50
1350.50	Lunch & Raffle	732.50
94.20	Donations	41.00
	Transfer from Reserve Fund	<u>300.00</u>
		2885.80
	LESS EXPENDITURE	<u>2578.71</u>
	Balance carried forward to 1 January 2015	307.09

RESERVE ACCOUNT

2013	Item	2014
	Balance brought forward	2472.05
1.01	Bank Interest	<u>1.11</u>
		2473.16
	LESS EXPENDITURE	<u>300.00</u>
	Balance carried forward to 1 January 2015	2173.16

CENTENARY FUND

2013	Item	2014
	Balance brought forward	1695.15
	Transfer from OPAL account	0.16
	Transfer from Current account	50.00
	Symposium Dinner	1325.00
	Symposium Lunch	<u>367.00</u>
		3437.31

EXPENDITURE

CURRENT ACCOUNT

2013	Item	2014
	Cheques not presented from previous year	78.00
215.00	Lecture fees	145.00
271.00	Subscriptions to societies	253.00
145.22	Stationery & post	293.63
949.03	Printing & copying (except Annual Report)	191.96
1660.35	Lunch (centenary in 2013) & raffle	678.00
	Lit. & Phil. donations (2 yrs)	457.12
235.00	Insurance	235.00
213.99	Website	99.99
	Hospitality, prizes, flowers	97.01
	Transfer to Centenary Fund	<u>50.00</u>
		2578.71

RESERVE ACCOUNT

2013	Item	2014
	Transfer to Current Account	300.00

CENTENARY FUND

2013	Item	2014
	Printing Annual Report	764.40
	Printing tickets & menus	88.00
	Symposium refreshments & lunch	585.00
	Symposium dinner	1440.65
	Speakers' expenses	455.00
	Other expenses	<u>88.98</u>
		3422.03

TOTAL CARRYOVER INTO 2015:

Current Account	307.09
Reserve Account	2173.16
Centenary Fund	<u>15.28</u>
	2495.53

FIELD MEETINGS AND WORKSHOPS REPORT

The 2014 programme started with a Lichen Workshop, led by Professor Mark Seaward. The workshop was well supported, and, after a short indoor session, concentrated on practical field observation. The date coincided with Whitby Goth weekend, which led to some interesting encounters on the afternoon field trip to St Mary's churchyard (colour picture 3).

The Dragonfly Workshop, led by Keith Gittens, was a joint event with other local natural history societies, and was also very popular. The weather wasn't ideal, but the field trip to the pond at Calla Beck was rewarded with views of broad bodied chasers, as well as various damselflies. The workshop was followed by a field meeting at Jagger Howe, in conjunction with the Yorkshire Dragonfly Group. This time the weather was better, and the group found golden ringed dragonflies egg laying on moorland flushes, and several other species of dragonfly and damselfly typical of the habitat.

The autumn workshops were less successful, with geology cancelled through lack of bookings, and the mosses field session postponed due to bad weather. However, Alan Ritson's excellent mosses theory session was much appreciated, and participants look forward to a field trip next spring.

Whitby Abbey takes an interest in the living organisms occurring on the site, and opened their doors for an evening members' visit to survey amphibians, bats and moths. It was a cold, breezy evening, quite unsuitable for moth trapping, and any bats were feeding elsewhere. A small newt was found in a pile of stones, but the highlight of the evening was a beautiful sunset behind the ruined abbey buildings. Later in the year, there was a Club visit in daylight, led by Christiane Kroebe. It was another cool, windy day, but Christiane gave a fascinating account of the early history of the Abbey. We are grateful to Whitby Abbey for their support and co-operation with these Club events.

We are also grateful to the Friends of Pannett Park, who treated us to guided tours of the park, with many fascinating insights into its history, and recent changes in the gardens. This was followed by a well-timed cup of tea, just as the threatened rain arrived.

Paula Lightfoot and Jane Pottas jointly led seashore events at Robin Hood's Bay and Runswick Bay. The first was one of the 'Shore Thing' surveys,

repeated annually, to record changes in organisms on a beach transect. The second was more educational, but still involved recording what was identified. After a morning spent exploring rock pools, specimens were examined under microscopes in the afternoon.

In June, we had an evening visit to the woods above May Beck to look for nightjars. There were plenty of flying insects – particularly midges, who found Club members very much to their taste. As the light faded, the birds could be clearly seen in their distinctive flight. John McEachen, who was leading the trip, is a licensed bird ringer, and had set up a mist net. A male bird was caught, allowing members to see the clear white patches on the wing of the male bird.

Other bird watching events were boat trips. The first was an RSPB cruise below Bempton Cliffs, to view the nesting seabirds. Once again, the weather wasn't good, but the cruise went ahead, and the view of the chalk cliffs, with huge nesting colonies of gannets and other seabirds, were spectacular. The second was a shorter cruise on the Esk Belle, led by Graham Oliver. There were good sightings of seabirds, including a dramatic chase by a skua, although, sadly, no cetaceans were spotted this time.

There was perfect weather for the walk around Skinningrove, looking at plants and butterflies. Skinningrove has an interesting range of habitats, including sand dunes, salt water splash zone, and coastal grassland slopes. Each has a specialist ecology, including some rare plants. The coastal grassland was at its best, with a superb display of orchids, yellow-wort and others (colour picture 11). However, the highlight of the walk was the grayling butterfly, which has recently colonised this area, and is rarely seen in North East Yorkshire.

In contrast, the Ruswarp Round walk was almost washed out by a tremendous downpour, forcing a delayed departure. An intrepid group completed the walk, observing some rare saltmarsh plants on the way out by the rail track, and stopping to see the ancient weighbridge along the way. We were accompanied by members of Gateway, who were instrumental in the creation of this walk.

Jane Ellis and George Featherstone selected Kettlewell for their industrial history walk in 2014. With permission to explore the old railway sidings, and mine site, Jane and George gave a picture of the area in ironstone mining

times. As the group walked along the Cleveland Way, signs of bleached thistle fungus were clearly evident (see the Fungi Recorder's Report).

We were invited to Ravenscar in September, to view the badgers that feed most nights in Jenny Bartlett's garden. Soon after dark, the first badgers appeared, and soon a group of five could be seen and heard outside her back door. Concealed inside, members could approach within a few feet of the animals.

The Club has a wide range of interests, and the programme (together with the less mobile group visits) was intended to have something of interest to all members. I would like to thank Alan Ritson, Jane Pottas and John McEachen for their help in planning events, and also all the leaders, who contributed time and expertise, and made our events so interesting and enjoyable.

Wendy English

LESS MOBILE GROUP REPORT

In 2014 the committee agreed that, with the help of Laura Smith, I should restart the once very popular 'Less Mobile Group'. This was set up originally for members who could no longer complete the normal Club outings due to age or infirmity. The group had been suspended due to financial constraints, mostly the costs of the mini-coaches. However, a chance discovery that the "Good Neighbours Scheme" had a very economical 14-seater mini-coach has allowed us to restart the group at a cost of about £5 per outing per person. (We do try to fit in a visit to a cafe as well!)

We went on three outings in 2014; firstly to Saltburn Woods in May to see the spring flowers, secondly to Goathland in June and finally to Rievaulx Abbey and Ashberry Pastures nature reserve in July. The first outing was so well attended (21) that we needed a couple of cars to help out with transport. On the final 2 outings we managed to cope with only the mini-coach and this was generally thought to be a better arrangement.

I intend to keep the group going into 2015 if enough members come forward to attend. I have plans to visit the 'Roman road' in Wheeldale, if the coach can manage it, and for other outings I have in mind Thornton-le-Dale and possibly Skinningrove. The pyramidal orchids were reported to be excellent

on the cliff tops there last year. The scenery of the steel works is less than inspiring but the track should be OK for our members, two of whom used their three-wheeled walkers on some interesting paths last year.

I will contact all those who attended the group last year when I have confirmed the dates with the "Good Neighbours Scheme". I think we may need a few extra members, so if you would like to join our group, please telephone or e-mail me.

Mike Yates

ARCHIVIST & LIBRARIAN'S REPORT

Last year was an interesting one for the library. We were able to loan our glass slides of the Rohilla disaster to Peter Thompson of the Life Boat Committee and we were also able to have a table in the Public Library at an event to raise awareness of the many societies available to the inhabitants of Whitby.

Our Library received a beautiful gift from the estate of Betty Hall, a former member. It is a collection of some of her lovely watercolours of walks. Betty was a walks leader for both the Naturalists and Whitby Whalers. Many of our members will have enjoyed her walks.

Betty was also a mathematician and a former code-breaker at Bletchley Park. She will be remembered by those who knew her as a quiet, pleasant and unassuming lady.

Jean Dawson

AFFILIATIONS & MAGAZINES

The Club is affiliated to the following associations:

Yorkshire Wildlife Trust

North Yorkshire Moors Association

Badger Group

Yorkshire Naturalist Union

RSPB

Cleveland and Teesside Local History

Teesside Archaeological Society

The North East Geology Trust

The Ramblers Association (for insurance purposes)

Magazines of these associations are passed around among the membership to those interested. If you would like the opportunity to view any of the magazines produced by these societies, please contact either the Librarian, Jean Dawson, or Laura Smith.

RSPB and Yorkshire Wildlife Trust membership cards can also be borrowed for use from the Librarian on request.

Jean Dawson

AMPHIBIAN & REPTILE RECORDER'S REPORT

Very few sightings were reported to me over the year. The sum total is as follows:

- 18 February. Ruth Harwood reported frogs in her pond near Aislaby. On the same day there were frogs in my pond in Sleights. No spawn appeared in Sleights but two days later Ruth noted spawn in Aislaby, which was subsequently frozen.
- 2 March. There were 12 frogs in my pond in Sleights, but no spawn appeared. This is far fewer frogs than I had at a similar time last year. There was also one newt, probably a smooth.
- 10 March. John Richardson in Whitby reported approximately 10 frogs and 5 clumps of spawn. He thought he had more frogs than last year.
- 21 March. There were about 12 frogs and two clumps of spawn in my pond.
- 24 March. Only two frogs but lots of spawn in my pond.
- 24 March. Ruth reported that the spawn in her pond had hatched and she had also found a toad buried in soil in the garden.
- 27 March. The spawn in my pond did not rise to the surface. Later it became green and slimy and rotted. I wondered if it had been infertile, but Wendy English thought it had been frozen.
- 2 April. There were at least four smooth newts in my pond. Also at this time Jean Benson in Aislaby reported seeing "a very large frog" and lots of very large spawn. She felt it was not a normal frog, but when I referred this back to the Naturalists' Club, it was felt that it must just have been a large frog, there was nothing else it could be.

- Throughout early April, the newts in my pond were apparently eating the unhatched spawn.
- 16 April. Wendy English reported a slowworm at Boggle Hole, 14-16" long. It was reported to her by a NYMNP volunteer.
- 4 May. Wendy English observed courting adders at Sledgates.
- 27 June. Wendy English observed 7 Great Crested Newts, both male and female, and 5 smooth newts at the Allotment Pond.
- I often observed up to 5 smooth newts at a time in my pond during June.
- 10 August. Marshall Best saw a slowworm at Kettleless and took a photo.
- 14 August. Pauline Popely observed two small smooth newts and one Great Crested Newt at the Abbey Pond. She said that staff at the Abbey reported seeing several on the paths.
- 31 August. I saw one very small newt pole in my pond.
- 29 September. 2 members of a Whalers walking group at Ravenscar reported seeing a "corpse", but were unable to say whether it was a slowworm or a grass snake or an adder!

I am sure there is much more out there that could be reported – next year?

Valerie Harwood

MAMMAL RECORDER'S REPORT

Thank you to Club members and friends for the interesting reports this year. Although they have been quite few, they are varied and detailed.

Wendy English spotted a mink on the shoreline again this year. It was closer to Whitby than the previous year. Although it is impossible to say if it was the same creature from last year, it does make me wonder if numbers are increasing and indeed spreading along the shore. Sadly these beautiful little creatures are very destructive and understandably not welcomed by most as they are not native to our shores or rivers.

As is the case for Grey squirrels, these animals have been released in Britain without thought or understanding of the consequences. It has been proposed recently that some areas are considering a cull on Grey Squirrels to try and control the numbers. Most naturalists do not see this as the way

forward, as it is too haphazard and uncontrolled, preferring instead to develop a form of 'birth control' for Greys which would limit the numbers humanely and give the Red population a chance to re-establish in areas where it previously died out. Hopefully common sense will prevail and the latter idea will be adopted. It would be sad to no longer see these lovely little creatures in Pannett Park and other areas.

The Badger cull has been an unmitigated disaster; carried out inefficiently and in some cases inhumanely. The scientific community are yet again pushing for a cattle vaccine, which would control TB much more effectively and, some hope, eradicate this awful disease. The farming community need a proper solution to this problem, not a 'band aid to fix a broken leg' attitude from government. Again, I hope common sense will one day prevail.

The Hedgehog Trust has reported an increase in numbers of these fascinating little critters this year. If anyone is interested in finding out more about how to attract them to your garden and how to feed them, go to their website where you can download a leaflet on the do's and don'ts of hedgehog management. Apparently they love cat food. Making a small hole in your fence allows them to go from garden to garden in safety. If anyone is not online but would like a leaflet, let me know and I can print one for you.

I hope 2015 sees some positive steps made in the above problems and that we continue to grow in strength as a Naturalist Society. We are very lucky to live in an area with wildlife on our doorsteps and it is surprising how many different species you can spot if you take the time to look when out and about. Since taking over as Mammal Recorder I have certainly been more aware of animals I once took for granted. It always makes me smile when I see squirrels in the park or a weasel running down the lanes on the moor.

Selected records:

- **Brown Hare.** 6 July 2014; Aislaby Lane end. End of July; A171 near Aislaby Lane end; road kill.
- **Mink.** August; off Whitby Coast, near wreck of concrete ship.
- **Grey Seal.** September; River Esk, near viaduct. November; Whitby, West Pier.
- **Common Seal.** November, Whitby, West Pier.
- **Roe Deer.** November, 2 at May Beck.

- **Daubenton's Bat.** November, 6 and 10 observed on separate occasions during first day of bat survey. November, 3 and 2 observed on separate occasions during second day of bat survey.
- **Pipistrelles.** Heard, but no other information.
- **Hedgehog.** 12 June, Aislaby garden. 18 June, Aislaby, main road, hit by car.
- **Grey Squirrel.** May to end of year, continuously present in Aislaby gardens and main road. Pannett Park. Spring Vale, behind medical centre.
- **Brown Rat.** October, Aislaby garden, observed coming from downpipe on stone wood store.
- **Badger.** May, Newholm Lane (next to Park & Ride), road kill. September, Dunsley, in field adjacent to Dunsley Hall.

Wendy Rayment

PLANT RECORDER'S REPORT

Temperatures this year have been slightly above average, with rainfall significantly lower. Conditions seemed to favour early purple orchids *Orchis mascula*. Ruth Harwood observed a group above Sleights; there was a new record for Upgang Ravine, and a good colony was seen on the roadside verge at Raithwaite. The latter has been brought to the attention of North Yorkshire County Council, as work to avoid the risk of landslips is due to start on the verge over the winter.

Another scarce plant under threat is the narrow-leaved everlasting-pea *Lathyrus sylvestris* in the alum works at Sandsend. Mulgrave Estate, unaware of its presence, cleared the area where it grows, for a charity event in May. When they were told of its value, they undertook to look after it. I would also like to express thanks to Christiane Kroebe who helped me mark the surviving shoots for the estate staff.

The main Club botanical field trip this year was to Skinningrove. There is an interesting variety of habitats to be observed, including dunes, the saline splash zone, and coastal slope grassland. Members saw specialised plants such as sea milkwort *Glaux maritima* and sea sandwort *Honckenya peploides* in the splash zone by the old harbour wall and lyme-grass *Leymus arenarius* and marram grass *Ammophila arenaria* on the dunes.

The grassland flora was spectacular, with a magnificent display of pyramidal orchids *Anacamptis pyramidalis*, yellow-wort *Blackstonia perfoliata* and common centaury *Centaureum erythraea*. Closer inspection revealed a few fragrant orchids *Gymnadenia* sp, which members confirmed are well named.

Whitby Abbey provided Club recorders with free entry this year, so that records could be reported. A plant list has been made. The Abbey manages its land for wildlife, cutting the grass for hay once a year. Although some of the grassland is still quite rank, there are areas where yellow rattle *Rhinanthus minor* is weakening the grass, and allowing a greater diversity of wildflowers and finer grasses to grow. Common vetch *Vicia sativa* and yellow oat grass *Trisetum flavescens* were found. The pond is the area of most botanical interest, with a stand of sea club-rush *Bolboschoenus maritimus* providing an excellent habitat for dragonflies and other creatures.

Several interesting garden weeds have been reported this year. Peter Wallace observed a fumitory, which he recognised as an unusual species. Alan Ritson confirmed it was white ramping fumitory *Fumaria capreolata*. Graham Featherstone found gallant-soldier *Galinsoga parviflora* and annual mercury *Mercurialis annua* growing in Lealholm. There are very few records of these plants in this region.

I am grateful for all records received, and would welcome more contributions from interested members.

Wendy English

GEOLOGY RECORDER'S REPORT

The past year has seen another small miracle for the Geology Trust in the form of a successful application to the Heritage Lottery Fund for a grant towards the cost of our latest project. More details are available on the Trust's website [www.neyorksgeologytrust.com]. The project aims to celebrate the life of Lewis Hunton, a very special local person who made a huge but overlooked contribution to the modern world. This ties in beautifully with the work of the Trust in protecting and sharing our wonderful local Geodiversity and has allowed us to deliver special events linked to Lewis' life and work. Two 'blue plaques' have been prepared to

commemorate Lewis and these, along with a special interpretation panel, will be installed later this year, probably as part of Heritage Open Days so please keep an eye out for that event. In addition we have been able to support numerous interns, giving them invaluable experience in fieldwork, dealing with the public, making presentations and generally helping with the work of the Trust. Two of our interns have successfully moved on to study Geology at University.

The project has also supported development of our unique Geonaut idea (colour picture 5), we now have two Geonaut Clubs running: one at St Benedict's Primary School in Ampleforth; the other at Hummersea Primary School in Loftus. The idea is to provide a means for youngsters to understand and explore their planet, to get them out of the classroom and get their hands dirty exploring their local geology and landscapes for themselves. Geonauts is a new idea and these two Geonaut Clubs are our guinea pigs, so far the experiment has been an enormous success and we are hoping to develop this idea much more in the coming year.

Geonauts is fundamental to the work and ethos of North East Yorkshire Geology Trust, to enable people to understand and participate themselves. If we want conservation to improve and flourish into the new century we need to engage and motivate the young to be part of this movement, hopefully the work we are doing alongside organisations like the Whitby Naturalists' Club will promote that ideal.

Mike Windle

Editorial note. Mike is Geology Recorder for the Club, but his efforts in 2014 focused on the Geology Trust, in Robin Hood's Bay. The present report reflects this. The Club has interacted with the Trust over many years, so Members will understand why it has been given such emphasis.

ARCHAEOLOGY RECORDER'S REPORT

Among the most significant excavations in the past year, certainly in the north east of England, must be those at Binchester in County Durham. These include a bath house once decorated with painted walls and an altar to the goddess Fortuna. To hail these as remains of the 'Pompeii of the North' may be over the top, but they show that this staging post on the road to Hadrian's Wall had a highly developed culture. The discovery of a silver

ring with distinctive Christian symbols, dating from the third century A.D., confirms the testimony of the writers Tertullian and Origen that the faith had reached Britain by that time, and well to the north.

A much later, but still significant, discovery was that of the Bedale Viking hoard, showing penetration by the Norsemen deep into the county. An appeal was launched this year to keep the hoard in Yorkshire.

This will be my last report for the Naturalists' magazine. May I conclude by saying that it has been a privilege and a pleasure to follow the work of archaeology locally and worldwide, and by expressing my good wishes to my successor? When it is complete, I intend to deposit a second volume of my scrap book to the Museum.

Barrie Williams

BIRD RECORDER'S REPORT

It is not possible to talk about the state of our bird population without referring to the unusual weather conditions that occurred both before and during 2014. The winter of 2013 was the stormiest for 20 years. This followed the wet and cold spring and summer of 2012 and the extremely bad breeding spring of 2013. Weather can have a significant impact on the bird populations we see in the countryside and in our gardens.

Thankfully, the 2014 breeding season was excellent for most of our species. According to our ringing records for 2014, the number of young tits, finches and thrushes present, compared to the number of adults, has achieved the expected proportions. In a normal year there are approximately three times as many young birds as there are adults. Following the 2013 bad breeding season we were surveying more adults than young, even of prolific breeders like blue and great tits.

Barn and tawny owls made a recovery after a bad year, with barn owls still having broods into late August/September. Waders on the moors also had a good season due to there being a plentiful supply of insects on which the young could feed.

On a national scale, there has been a northerly range shift of species from warmer climates, witness the now abundant breeding little egrets; the Dartford warbler has left its Surrey/Norfolk strongholds and can now be

found well into the middle of the country; great white egret and common cranes are also becoming established breeders.

A phenomenon currently being highlighted by the British Trust for Ornithology points out that the mild weather has meant abundant food being available in the countryside, and therefore common garden birds do not seem to have the need to visit our gardens during the autumn/winter period. The scientists at the BTO are asking us to observe and note the birds using our gardens and feeders over winter. It looks set to be an interesting time, so get those binoculars out and ready on the window ledge. It would be extremely useful if members could keep me up to date with your observations this winter, particularly when you have winter visitors like fieldfare, redwing and waxwings on your feeders or berry bushes.

The winter months of 2014 brought a number of sightings of interesting diver, black-throated and red-throated in particular. A report of a great northern diver in the harbour could not be confirmed, although some of our experienced birders did look for it. A long stay Iceland gull entertained local photographers at Sandsend (colour picture 6). The winter resident purple sandpipers and turnstones returned to the harbour area from their summer breeding grounds in the high Arctic, and there were good brambling flocks in gardens and on the fields in the first months of the year. Interestingly, the winter months at the end of 2014 saw very few winter visitors.

A long-tailed duck was present at Scaling Dam on the edge of our area, while buzzards were numerous and individual hen harriers passed through in small numbers.

Spring and summer, as always, brought back migrant species. A cuckoo was heard in April, ring ouzels and wheatears passed through, some on their way to breeding grounds on our more northern dales, and hobby returned to the area, an almost certain but secretive local breeder. Merlin breeding was not great in 2014, but did show an improvement from 2013. There is a theory that with slow climate change, these little falcons, which are at the southernmost edge of their range in this area, are abandoning the lower lying parts of the moors and moving to higher ground to breed.

Nightjars and woodcock were in the forest for all to hear and see from May. A peregrine survey organised by Graham Oliver confirmed that these wonderful birds still make use of our cliffs and other suitable sites. Quail

were heard calling on Fylingdales Moor and it is highly likely that there are more of these elusive birds around than we think on our farmland and fallow fields. We just need to listen more for the distinctive “wet-my-lips” call.

The autumn brought the usual off shore passage of various species of skua and shearwater, and the regular fall of scarce migrants.

There has been ongoing debate in the press and elsewhere about illegal persecution of hen harriers and other raptors on some commercial driven grouse moors. There still exists, unfortunately, a small number of gamekeepers and moorland owners who feel that having a hen harrier or two, or a short eared owl, or a buzzard on their moor curtails their ability to sell shooting rights to syndicates for extremely high amounts of money. Unfortunately, we have no evidence of breeding hen harrier or short-eared owl on any of our local moors.

In relation to this story I would urge members who are out and about in the forest and on our moors to be alert to any sick, injured or dead hawk or owl, or one caught in an illegal trap such as a spring trap. If you do come across such an event, please take photographs and notes of the circumstances and where and when the incident is occurring and telephone the police or RSPCA, or failing that get in touch with me at 07970574228, e-mail: mceachen@btinternet.com.

NB. Most Larson (cage) Traps on the moors are being used legally and should not be interfered with. These traps should be either open, when not in use, or, if they contain a decoy species (usually carrion crow), must have sufficient food and water for the bird. Gamekeepers must by law visit them every day. If you are certain that these rules are being disregarded please get in touch with the contacts above.

Thank you to all those who send me records for the annual bird list and particular mention of those dedicated birders who provide the majority of records: Paul Newton (PN), Graham Brittain (GB), Bryan Jobling (BJ) and Graham Oliver (GO). Other reporters: Robert Adams (RA); Niall Carson (NC); Wendy English (WE); Chris Hansell (CPH); Ruth Harwood (RH); David Richardson (DR); Alan Ritson (AR); Sandra Smith (SS); Jeremy Snape (JS); Terry Thompson (TT).

John McEachen

Annotated List of Birds in the Whitby Area in 2014

- **Mute Swan**, *Cygnus olor*. Present all years, but not abundant.
- **Whooper Swan**, *Cygnus cygnus*. Ten over Whitby, Jan.; 6 Sandsend, Oct.; Scaling Dam, Nov.
- **Bean Goose (Taiga)**, *Anser fabalis*. Found ill at Boggle Hole, Jan. (GB).
- **Pink-footed Goose**, *Anser brachyrhynchus*. Ruswarp Dam, Jan.; 3 Scaling Dam, April; 70, Kettleiness, Oct.; skeins over St Oswald's, Oct.; Whitby, Nov.
- **White-fronted Goose**, *Anser albifrons*. 3 Scaling Dam, Dec. (PN).
- **Greylag Goose**, *Anser anser*. Resident, Scaling Dam; Whitby Esk, March.
- **Canada Goose**, *Branta Canadensis*. Scaling Dam; Whitby Harbour; Sleights Moor.
- **Brent Goose**, *Branta bernicla*. 9 West Pier, 5 Nov. (PN).
- **Barnacle Goose**, *Branta leucopsis*. 36 between Whitby and Staithes, Sept. (GO).
- **Shelduck**, *Tadorna tadorna*. Scaling Dam, June; one off West Pier, 6 Nov. (PN).
- **Mandarin Duck**, *Aix galericulata*. Male, Ruswarp.
- **Wigeon**, *Anas penelope*. Four, Sandsend, Jan.; four Carr Mount Farm, Feb.; five, Ruswarp, Feb.; Kettleiness, Sept.
- **Teal**, *Anas crecca*. Sandsend, Jan.; 20 Falling Foss, Feb.; two Whitestone Point, March; Falling Foss, Aug./Dec.; Sandsend, Nov.
- **Mallard**, *Anas platyrhynchos*. Abundant: Ruswarp; Whitby Harbour; Sandsend.
- **Gadwall**, *Anas strepera*. Three, Scaling Dam, April.
- **Shoveler**, *Anas clypeata*. Scaling Dam, June.
- **Pochard**, *Aythya farina*. Scaling Dam, Nov.
- **Tufted Duck**, *Aythya fuligula*. Resident, Scaling Dam.
- **Scaup**, *Aythya marila*. Single female, Scaling Dam, Feb. (PN).
- **Eider**, *Somateria mollissima*. Male, Sandsend, Jan.; Saltwick Bay, Jan.; Boggle Hole, Jan.; male, Whitby Harbour, Feb.; 16 off West Pier, Nov.; RHB, Dec.
- **Long-tailed Duck**, *Clangula hyemalis*. Single, Scaling Dam, Jan. (GB).

- **Common Scoter**, *Melanitta nigra*. Regular along coast in winter. Winter rafts: 20 Kettleless, July/Sept.; 200 Port Mulgrave, July (GB); off Upgang Ravine Sept (RA); off West Pier, Nov. (PN).
- **Goldeneye**, *Bucephala clangula*. Male, Ruswarp, Jan.; female, Ruswarp, Feb.; Runswick, Jan.; Scaling Dam, Nov.
- **Goosander**, *Mergus merganser*. Breeds and present on the Esk in all months: Female, Ruswarp, Jan. (GB); three, Throstle Nest, Dec. (GB).
- **Red Grouse**, *Lagopus lagopus scoticus*. Present on Fylingdales and Goathland moors.
- **Red-legged Partridge**, *Alectoris rufa*. Bred and released in large numbers in area.
- **Grey Partridge**, *Perdix perdix*. Three, Hawsker Bottoms, April (BJ); pair, Sleights Moor, April (GB); Whitestone Point, Oct.
- **Quail**, *Coturnix coturnix*. One, Mucky Hole Slack, June (CPH).
- **Pheasant**, *Phasianus colchicus*. Very common throughout the area.
- **Red-throated Diver**, *Gavia stellata*. Whitby Harbour, Jan./Feb. (PN); 20, Sandsend, Jan. (PN); 10, Ness Point, Feb. (PN); Saltwick Bay, Feb.; Saltwick Bay, Dec. (GB).
- **Great Northern Diver**, *Gavia immer*. Reported by unknown observer, Whitby Harbour, Feb. (No confirmation from other observers).
- **Black-throated Diver**, *Gavia arctica* Winter visitor: One off Whitby, Jan; Whitestone Point, March (PN).
- **Fulmar**, *Fulmarus glacialis* Breeding species along local sea cliffs: 12, West Cliff, Apr/May/Sept (RA).
- **Sooty Shearwater**, *Puffinus griseus* Seen on passage: Recorded from *Specksioneer*, 30 Aug (GB); Kettleless, Sept (GB).
- **Manx Shearwater**, *Puffinus puffinus* Port Mulgrave, July; Hawsker Bottoms, Aug; Kettleless, Sept.
- **Cory's Shearwater**, *Calonectris diomedea* Kettleless, 22 Sept (GB). Positive ID.
- **Gannet**, *Morus bassanus* Regular passage along the coast. Nearest breeding colony is at Bempton Cliffs.
- **Cormorant**, *Phalacrocorax carbo* Regular in Whitby Harbour; Esk; Ruswarp; Scaling Dam.
- **Shag**, *Phalacrocorax aristotelis* Saltwick Bay, Feb (BJ); Ness Point, Feb (PN).

- **Little Egret**, *Egretta garzetta* Seen between Glen Esk caravans and Viaduct, 19 July (BJ).
- **Grey Heron**, *Ardea cinerea* Seen along Esk, Whitby Harbour, and coast all months.
- **Little Grebe**, *Tachybaptus ruficollis* Viaduct, Jan (PN); Falling Foss, Feb/March/July/Aug; Scaling Dam, Nov; Ruswarp, Dec (GB).
- **Great Crested Grebe**, *Podiceps cristatus* Present: Scaling Dam; Sandsend, Jan; Lythe Bank, Nov.
- **Red Kite**, *Milvus milvus* Now seen more regularly flying over area: Low Moor April (CPH).
- **Marsh Harrier**, *Circus aeruginosus* Female, Fairhead Moor, April; Scaling Dam, 11/13 June.
- **Hen Harrier**, *Circus cyaneus* Male, Sleights Moor, 23 Jan (TT); five reports from Fylingdales Moor, May (CPH); Scaling Dam, 29 Nov (PN/BJ).
- **Sparrowhawk**, *Accipiter nisus* Common resident breeder.
- **Goshawk**, *Accipiter gentilis* Reported regularly throughout the area, particularly around Sneaton Forest.
- **Buzzard**, *Buteo buteo* Reports too numerous to list. Clearly spreading quickly as a breeding species throughout the area.
- **Rough-legged Buzzard**, *Buteo lagopus* Ravenscar Mast, 17 Oct (CPH).
- **Honey Buzzard**, *Pernis apivorus* Burn House Moor, 12 June (CPH).
- **Kestrel**, *Falco tinnunculus* Good local population.
- **Merlin**, *Falco columbarius*. 2014 was a better breeding season for Merlin, although overall numbers are going down: Newton House Plantation, Feb. (GB); three, High Moor, May (CPH); Blue Beck Quarry, Aug. (WE).
- **Hobby**, *Falco subbuteo*. Various reports of breeding. Undisclosed location, 5 May (CPH).
- **Peregrine**, *Falco peregrinus*. Breeds regularly on coast and in suitable habitat inland. Many reported sightings throughout the year.
- **Moorhen**, *Gallinula chloropus*. Resident in numbers at Scaling Dam and suitable habitats around the area: Falling Foss, March/July.
- **Coot**, *Fulica atra*. Whitby Harbour, Feb. (PN); Scaling Dam in numbers.
- **Common Crane**, *Grus grus*. Two over Pannett Park, 27 Aug. (GO).

- **Oystercatcher**, *Haematopus ostralegus*. Common resident: 20+, Ruswarp, April (SS); Whitby Harbour, April (RA); 50, Whitestone Point, Nov. (JMC); Saltwick Nab, July: 40+, Whitby Golf Course, various dates.
- **Stone Curlew**, *Burhinus oedicanus*. Seen, chased by Marsh Harrier, Scaling Dam, 13 June.
- **Golden Plover**, *Pluvialis apricaria*. Breed on local moorland: 90, Sleights Moor, April (BJ); Ness Point, Sept.; Raindale Ravine, Oct.
- **Lapwing**, *Vanellus vanellus*. Common, though declining breeder: Scaling Dam, July; Ness Point, Sept.; 50+, Aislaby Nov.
- **Little Ringed Plover**, *Charadrius dubius*. Two, Scaling Dam, April (PN).
- **Ringed Plover**, *Charadrius hiaticula*. Saltwick Bay, Aug. (BJ); 20+, Uppang, Oct. (WE); Saltwick Bay, Sept.; RHB, Dec. (GB).
- **Knot**, *Calidris canutus*. Boggle Hole, Jan. (GB); from *Specksioneer* off coast, 30 Aug. (GB); flock flying south off harbour, 2 Sept.
- **Ruff**, *Calidris pugnax*. Scaling Dam, Aug. (DR); Saltwick Bay, Sept. (GO) (colour picture 7).
- **Dunlin**, *Calidris alpina*. 11, Saltwick Bay, Feb. (BJ); Whitby, Church Street slipway, April (RA); RHB, Dec.; Boggle Hole, Dec. (GB).
- **Purple Sandpiper**, *Calidris maritima*. 11, Whitby Harbour, Jan.; Boggle Hole, Jan.; 12, RHB, Feb. (BJ); West Pier, May/Sept. (RA); Kettleness, Aug. (BJ); Whitby Harbour, Nov.
- **Jack Snipe**, *Lymnocyprpes minimus*. Common on passage: two, Normanby Hill Top, 31 May (JMC).
- **Snipe**, *Gallinago gallinago*. Two, Sleights Moor, April; 7 Normanby Hill Top, 31 May (JMC); two Scaling Dam, July.
- **Woodcock**, *Scolopax rusticola*. Fairly common. Numbers increased by influx of continental birds in winter: Whitby, March (PN); Sneaton Forest, Nov.; St Oswald's, Nov.
- **Black-tailed Godwit**, *Limosa limosa*. South, past Whitby Lighthouse, Aug. (GB).
- **Whimbrel**, *Numenius phaeopus*. Sleights, July (BJ); Kettleness, July/Aug. (GB); six, Sleights, July (GB); RHB, Aug. (BJ).
- **Curlew**, *Numenius arquata*. Breeds on local moorland: 30, Saltwick Nab, July; 50+, Ling Hill Farm, Nov. (JMC); Saltwick Bay, Dec. (GB).

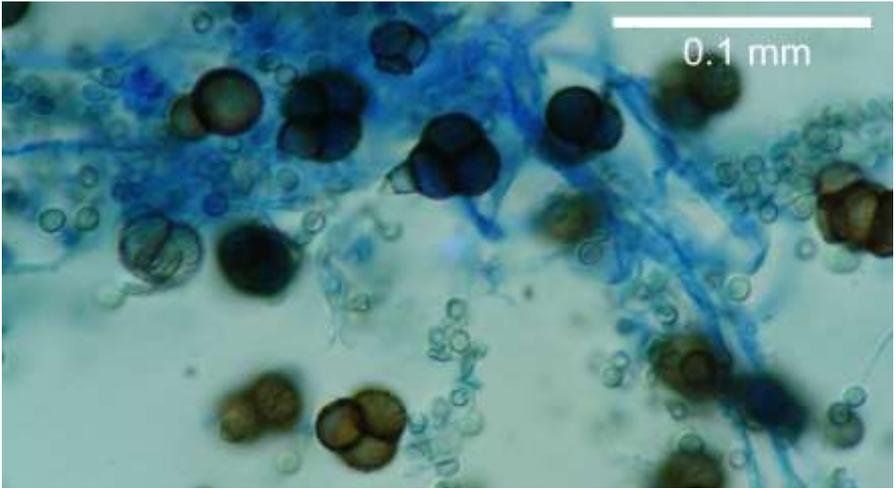


1. Frankland's Coffee Bar [Local History Recorder's Report]

2. *Phoma macrostoma* [Fungi Recorder's Report]

3. Examining churchyard lichens [Field Meetings & Workshops Report]





4. *Monodictys castaneae* [Fungi Recorder's Report]

5. Geonauts getting dirty hands [Geology Recorder's Report]



6. Iceland gull [Bird Recorder's Report]



7. Ruff [Bird Recorder's Report]



8. Yellow wagtail [Bird Recorder's Report]

9. Turnstone [Bird Recorder's Report]





10. Silky wainscot [Lepidoptera Recorder's Report]



11. Pyramid orchid [Field Meetings & Workshops Report]

- **Common Sandpiper**, *Actitis hypoleucos*. Present along the Esk: Ruswarp, July/Aug. (BJ).
- **Wood Sandpiper**, *Tringa glareola*. Two, Ruswarp, 22 July (BJ).
- **Green Sandpiper**, *Tringa ochropus*. Sneaton Forest, July (BJ); Ruswarp, Glen Esk Caravan Site, Aug. (GB).
- **Greenshank**, *Tringa nebularia*. Whitby, 15 Aug. (PN).
- **Redshank**, *Tringa totanus*. Whitby Beach, Jan.; Boggle Hole, Feb.; Scaling Dam, June; Whitby, Co-op Car Park, Sept. (RA); Saltwick Bay, Dec.
- **Turnstone**, *Arenaria interpres*. Common winter visitors from Greenland and Canada: 40+ resident flock in winter, Whitby Fish Pier; Boggle Hole, Jan.; Boggle Hole, Dec. (colour picture 9).
- **Great Skua**, *Stercorarius skua*. Seen off coast on *Specksioneer*, 30 Aug./2 Sept. (GB).
- **Pomarine Skua**, *Stercorarius pomarinus*. Off coast from boat, 8 Sept. (GB); West Pier (sea watch), 5 Nov. (PN).
- **Arctic Skua**, *Stercorarius parasiticus*. Kettleless, 18 July (GB); Whitestone Point, Aug. (PN); Kettleless, 22 Sept.
- **Little Auk**, *Alle alle*. Off West Pier, 5 Nov. (PN).
- **Puffin**, *Fratercula arctica*. Seen from *Specksioneer*, 30 Aug. (GB); off coast, 8 Sept.
- **Razorbill**, *Alca torda*. Four, Whitestone Point, March; 16, Whitestone Point, April; Hawsker Bottoms, April.
- **Guillemot**, *Uria aalge*. Ness Point, Feb.; Whitby Harbour, Feb.
- **Sandwich Tern**, *Sterna sandvicensis*. Hawsker Bottoms, July; Kettleless, July; Boggle Hole, Aug.
- **Common Tern**, *Sterna hirundo*. Sandsend, Oct.
- **Arctic Tern**, *Sterna paradisaea*. Two, from boat off Whitby, 2 Sept. (GB).
- **Kittiwake**, *Rissa tridactyla*. Regular along the coast: 60, Whitestone Point, March; 20 Sandsend, Apr.
- **Black-headed Gull**, *Larus ridibundus*. Colonies breed on wet areas of the NY Moors. Seen regularly throughout the year.
- **Common Gull**, *Larus canus*. Nests on the moorland but singly not in colonies. Seen regularly throughout the year.

- **Lesser Black-backed Gull**, *Larus fuscus*. Scaling Dam, April; 300, Kettleiness, Sept. (GB).
- **Herring Gull**, *Larus argentatus*. Area's most common gull: 100, Ugglebarnby, Jan.
- **Great Black-backed Gull**, *Larus marinus*. Seen along the coast: 60+ West Cliff, Sept. (RA).
- **Iceland Gull**, *Larus glaucooides*. (First winter juvenile) present Sandsend, Jan. to April (GO/ PN/ DR) (colour picture 6).
- **Rock Dove/Feral Pigeon**, *Columba livia*. Flocks on cliffs: Saltwick Bay; Uppgang Ravine; Sandsend.
- **Stock Dove**, *Columba oenas*. Common resident in the area. Readily takes nest boxes meant for kestrels or owls: Ruswarp, Glen Esk area July; Aislaby, Aug.; Foss Farm, Aug.
- **Woodpigeon**, *Columba palumbus*. Common resident sometimes in huge numbers.
- **Collared Dove**, *Streptopelia decaocto*. Common in gardens and farm yards.
- **Turtle Dove**, *Streptopelia turtur*. Summer visitor and present in numbers around Dalby Forest, but no local reports this year.
- **Cuckoo**, *Cuculus canorus*. Reported April to Aug.: Aislaby, 29 April (RH); Scaling Dam, April (PN); Sneaton Forest, June/Aug.
- **Barn Owl**, *Tyto alba*. Good and extended breeding season in 2014: Fylingdales Moor (CPH); Ellerby, Oct. (PN).
- **Little Owl**, *Athene noctua*. Ness Point, Feb. (PN); Whitestone throughout the year.
- **Tawny Owl**, *Strix aluco*. Aislaby, Jan./Feb./June; St Oswald's, July (BJ).
- **Nightjar**, *Caprimulgus europaeus*. Good numbers on clear felled areas around local forests: Newton House, June; Sneaton Forest, June; May Beck, June.
- **Swift**, *Apus apus*. Sleights, July; Whitby Town, July.
- **Kingfisher**, *Alcedo atthis*. Present along Esk: Ruswarp, Glen Esk Caravan Site, July; Ruswarp, Aug.
- **Green Woodpecker**, *Picus viridis*. Single birds: Ruswarp, Jan.; Green End, Jan.; Iburndale, Sept; Aislaby, Nov.

- **Great Spotted Woodpecker**, *Dendrocopos major*. Common throughout the area.
- **Great Grey Shrike**, *Lanius excubitor*. Sneaton Forest, 5 March (GO).
- **Magpie**, *Pica pica*. Common resident.
- **Jay**, *Garrulus galandarius*. Mulgrave Woods, Jan./Nov.; Sneaton, April; Aislaby, April/Oct.; Whitby, Oct.
- **Jackdaw**, *Corvus monedula*. Common around villages: 40+, Aislaby all year.
- **Rook**, *Corvus frugilegus*. Common breeder at rookeries around the area.
- **Carrion Crow**, *Corvus corone*. Resident throughout the area.
- **Goldcrest**, *Regulus regulus*. Mulgrave Wood, Jan.; Ness Point, Sept.; Raindale Ravine, Sept./Oct.
- **Blue Tit**, *Cyanistes caeruleus*. Very common resident.
- **Great Tit**, *Parus major*. Very common resident.
- **Coal Tit**, *Periparus ater*. Resident.
- **Willow Tit**, *Poecile montana*. Good population of this increasingly scarce resident: Scaling Dam, Feb./Dec. (PN).
- **Marsh Tit**, *Poecile palustris*. More common than Willow Tit: Sneaton, Feb.; Aislaby, April; Hawsker Bottoms, Oct.; Throstle Nest, Dec.
- **Skylark**, *Alauda arvensis*. Sneaton Corner, March; Whitby Golf Course, April; Howdale Moor, May; Biller Howe Moor, May; Abbey Headland, Sept.
- **Sand Martin**, *Riparia riparia*. Colonies at Boggle Hole; Upgang Ravine.
- **Swallow**, *Hirundo rustica*. Summer visitor. Nest widely in the area in good numbers in suitable sites. Latest reported, 7 Oct. (WE).
- **House Martin**, *Delichon urbica*. Declining summer visitor. Reports Apr. to Sept. from: Abbey Fields; Saltwick Bay; Hawsker Bottoms; Iburndale; Sandsend.
- **Long-tailed Tit**, *Aegithalos caudatus*. Common resident. Visits gardens in flocks in Autumn/Winter.
- **Yellow-browed Warbler**, *Phylloscopus inornatus*. Uncommon visitor. Hawsker Bottoms, Sept./Oct. (GB); RHB Oct.; Raindale Ravine, Oct.
- **Chiffchaff**, *Phylloscopus collybita*. Numerous records received for dates between 7 April and 26 Oct. from: Whitestone Point; Ness Point;

Iburndale; St Oswald's; Raindale Ravine; Whitehall Landings; Uppang Ravine.

- **Willow Warbler**, *Phylloscopus trochilus*. Uppang Ravine, April (RA); Whitestone, Aug. (GB); Raindale Ravine, Sept.
- **Garden Warbler**, *Sylvia borin*. Hawsker, Sept. (GB).
- **Barred Warbler**, *Sylvia nisoria*. Raindale Ravine, 12 Sept. (PN/BJ/DR).
- **Blackcap**, *Sylvia atricapilla*. Iburndale, April; St Oswald's, April; Uppang Ravine, April; Aislaby, Aug.; Raindale Ravine, Sept.; Ness Point, Oct.; Sleights, 8 Dec. (AR).
- **Lesser Whitethroat**, *Sylvia curruca*. Hawsker Bottoms, April (PN); Saltwick Bay Nab, April/Aug.; Ravenscar, April; Ruswarp, April; Whitestone Point, Aug.
- **Whitethroat**, *Sylvia communis*. Common summer breeder in suitable habitats: Hawsker, April; Uppang Ravine, April; Jugger Howe, July; Whitestone Point, Aug; Ness Point, Sept.
- **Grasshopper Warbler**, *Locustella naevia*. Uncommon Summer visitor. Birds heard singing at: Whitestone Point, April/July (BJ/GB); Port Mulgrave, 14 July (GB).
- **Reed Warbler**, *Acrocephalus scirpaceus*. Whitestone Point, Oct. (PN).
- **Icterine Warbler**, *Hippolais icterina*. Scarce migrant. Single bird reported (no name/confirmation).
- **Waxwing**, *Bombycilla garrulus*. Unusually, none reported in 2014.
- **Nuthatch**, *Sitta europaea*. Mulgrave Wood, Feb.; Throstle Nest, Sept.; Aislaby Sept./Oct./Nov.; Falling Foss, Dec.
- **Treecreeper**, *Certhia familiaris*. Mulgrave Wood, Jan.; Ruswarp, Jan.; Mulgrave Wood, Feb.; Jugger Howe, July; Throstle Nest, Sept.; Iburndale, Dec.
- **Wren**, *Troglodytes troglodytes*. Common resident in woodland: Mulgrave Wood, Jan./Feb.; Ruswarp, Jan.; Jugger Howe, July; Throstle Nest, Sept.; Falling Foss, Dec.
- **Starling**, *Sturnus vulgaris*. Common resident. Flock in large numbers for winter roosts.
- **Ring Ouzel**, *Turdus torquata*. Scaling Dam, April (PN); male Hawsker Bottoms, April (BJ); Ravenscar, April; Ness Point, May (PN); Whitestone Point, Oct. (BJ).
- **Blackbird**, *Turdus merula*. Common resident throughout the area.

- **Fieldfare**, *Turdus pilaris*. Green End, Jan.; Sneaton Forest, Feb.; Whitehouse, Feb.; May Beck, March; Whitestone Point, Oct.; Grosmont, Dec.
- **Song Thrush**, *Turdus philomelos*. Resident throughout the area.
- **Redwing**, *Turdus iliacus*. Iburndale, Jan.; May Beck, March; Ness Point, Oct.
- **Mistle Thrush**, *Turdus viscivorus*. Sleights, Jan. (GO); Sneaton Forest, March (PN); Aislaby, July (JMC).
- **Spotted Flycatcher**, *Muscicapa striata*. Population in the area has shown a decline in recent years. Reports from June to Sept. from: Goathland; Sneaton Forest; Jugger Howe; Saltwick Bay.
- **Robin**, *Erithacus rubecula*. Common resident.
- **Red-breasted Flycatcher**, *Ficedula parva*. Uncommon passage migrant: Whitestone Point, 14 Sept. (GB).
- **Pied Flycatcher**, *Ficedula hypoleuca*. Breeds in suitable habitats (usually in nest boxes) in the area: Kettleiness, Aug. (BJ); Whitestone Point, Aug.; Hawsker Bottoms, Sept.
- **Black Redstart**, *Phoenicurus ochruros*. Passage migrant: Raindale Ravine, March (PN).
- **Redstart**, *Phoenicurus phoenicurus*. Breeds at suitable habitats in the area, usually nest boxes: Fylingdales Moor, May; Falling Foss, July/Aug. (PN); Raindale Ravine, Sept.
- **Whinchat**, *Saxicola rubetra*. Summer visitor: Goathland, June (JS); Newton House Plantation, July (GB); Sneaton Forest, Aug.; Ness Point, Sept.
- **Stonechat**, *Saxicola torquata*. Newton House, Jan.; Red Gates, Feb.; Saltwick Bay, Feb.; Sneaton Forest, July/Aug.; Jugger Howe, July; Upgang Ravine, Nov.
- **Northern Wheatear**, *Oenanthe oenanthe*. Summer migrant and common breeder on the moors. Reports April to Aug. from: Battery Parade; Hawsker Bottoms; Sleights Moor; Whitestone Point; Fylingdales Moor; Whitby Golf Course; West Cliff.
- **Dunnock**, *Prunella modularis*. Common resident.
- **House Sparrow**, *Passer domesticus*. Resident throughout the area.

- **Tree Sparrow**, *Passer montanus*. Locally common resident, reports from: Scaling Dam; Aislaby; Sleights; Ruswarp; Upgang Ravine; Hawsker Bottoms; Saltwick Bay.
- **Yellow Wagtail**, *Motacilla flava*. Abbey Plain, Sept. (DR/GO); Whitestone Point, Aug.; Laites Farm, Aug. (PN) (colour picture 8).
- **Grey Wagtail**, *Motacilla cinerea*. West Pier, Sept. (RA); Abbey Plain, Sept. (DR); Whitby Business Park, Aug./Oct.; RHB, Dec.
- **Pied Wagtail**, *Motacilla alba yarrelli*. Present all year in the area.
- **White Wagtail**, *Motacilla alba*. Continental race of Pied Wagtail: Whitestone Point, March (PN); Hawsker Bottoms, March.
- **Dipper**, *Cinclus cinclus*. Reports from: Sleights Beck, Jan.; Ruswarp, Aug.; Throstle Nest, Sept.
- **Tree Pipit**, *Anthus trivialis*. Newton House Plantation, April (PN); May Beck, April (GB); Fen Bog, Oct.
- **Meadow Pipit**, *Anthus pratensis*. Whitestone Point, March; Cess Bank, March; Whitby Golf Course, April; Sleights Moor, May; Fylingdales Moor, May/June/July; Whitby Golf Course, Sept.
- **Rock Pipit**, *Anthus petrosus*. West Pier, Feb. (PN); Battery Parade-Beach Huts, April/May/Sept.; Whitby to Sandsend, Oct.; Saltwick Bay, Dec.; RHB, Dec.
- **Chaffinch**, *Fringilla coelebs*. Common resident.
- **Brambling**, *Fringilla montifringilla*. Winter visitor: Aislaby, Jan.; St Oswald's, Jan.; Hawsker Bottoms, Sept.; Whitby, Oct.
- **Greenfinch**, *Carduelis chloris*. May be recovering from the population crash. More records needed: Aislaby, Jan.; Upgang Ravine, May; Aislaby Nov./Dec.
- **Goldfinch**, *Carduelis carduelis*. Common in area: Records from: Church Street; Aislaby; Upgang Ravine; Ness Point; Hawsker Bottoms; Raindale Ravine.
- **Siskin**, *Carduelis spinus*. Ruswarp, Jan./Feb.; Iburndale, Feb.; Sneaton Forest, March/June/July; Beck Hole, Dec.; Grosmont, Dec.; Throstle Nest, Dec.
- **Linnet**, *Carduelis cannabina*. Sandsend, Jan.; Upgang Ravine, April; Abbey Head, Sept. (RA); Whitestone Point, Oct.
- **Lesser Redpoll**, *Carduelis cabaret*. Jugger Howe, July.

- **Common Crossbill**, *Loxia curvirostra*. Sneaton Forest, Jan. (PN); Newton House Plantation, Feb.; Sneaton Forest, June/Dec.
- **Bullfinch**, *Pyrrhula pyrrhula*. Sleights, Jan.; Sandsend, Jan.; Whitby, (possible northern race), Feb. (DR); Raindale Ravine, Oct.; Aislaby, Dec.
- **Snow Bunting**, *Plectrophenax nivalis*. Winter visitor: Sandsend (Cleveland Way), 9 Nov. (PN).
- **Yellowhammer**, *Emberiza citronella*. Sandsend, Jan. (GO); Aislaby March (JMC).
- **Reed Bunting**, *Emberiza schoeniclus*. Scaling Dam, Feb. (PN); Whitestone Point, March; Hawsker Bottoms, March; May Beck, March; Howdale Moor, May.
- **Corn Bunting**, *Emberiza calandra*. Report as seen at Staithes (Cowbar).

SEA & SHORE LIFE RECORDER'S REPORT

The Club's recording area, extending along the coast from Staithes in the north to Ravenscar in the south, encompasses a range of coastal habitats: these include sandy shore, between Whitby and Sandsend and at Runswick Bay; extensive areas of rocky shore with rock pools throughout the area; manmade habitat in the form of harbours at Staithes, Port Mulgrave and Whitby, sea wall at Robin Hood's Bay and rock armour at Whitby and Runswick Bay. Freshwater influx influences the habitat and thus the biology of the area with two becks at Sandsend; waterfalls at Deepgrove Wyke below Lythe and Billet Scar near Ravenscar and of course the River Esk at Whitby. Human impact is apparent at Robin Hood's Bay where the effect of trampling is all too evident leaving the rocks practically bare of seaweed cover in places in contrast to the rich fucoid cover at Boggle Hole.

Shores are dynamic habitats reflecting daily, monthly and annual rhythms which affect the species we find there so it's always an exciting prospect going to the shore and never knowing what will turn up. The Whitby Naturalists' Shore Day in June at Runswick Bay produced a rich array of animals and algae. One find was a berried velvet swimming crab (*Necora puber*). These crabs are ferocious and wave their claws menacingly when disturbed unlike the more retiring common or green shore crab (*Carcinus maenas*) which scuttles away or the shy edible crab (*Cancer pagurus*)

which folds its claws and legs under itself when alarmed. Other crustaceans included a hermit crab (*Pagurus bernhardus*) with its characteristic knobby claws, a spiny squat lobster *Galathea squamata* and several marine isopods such as *Idotea baltica*.

The rock pools were teeming with life: green seaweeds such as *Cladophora* species including *C. rupestris* and *C. sericea* and *Ulva* species; red seaweeds - iridescent *Chondrus crispus*, *Corallina* species; and brown seaweeds such as *Halidrys siliquosa*; anemones (*Actinia equina*); shrimps and fish and the thick-lipped dog whelk (*Nassarius incrassatus*); other hermit crabs, some with a green shell where cells of a green alga had bored into the shell. On turning over a rock we were rewarded with a mass of Shanny eggs (*Lipophrys pholis*) which we took back to our temporary makeshift lab set up in a function room at the Royal Hotel where we were able to watch the newly hatched young under the binocular microscope. The boulders themselves were covered with pink paint weeds (encrusting reds), brittle stars, chitons, bryozoa and keel worms and several colour morphs of the star ascidian sea squirt, *Botryllus schlosseri*, some with ampullae. Several species of marine snail were found including *Littorina obtusata* which is common on the brown wrack (*Fucus vesiculosus*) on mid-shore, several individuals having an orange rim to the shell indicating that they were immature specimens. The kelps which form a fringe at the low shore included *Laminaria digitata*, *Laminaria hyperborea* and *Saccharina latissima* and there were several specimens of the blue rayed limpet (*Patella pelucida*) on the kelp stipes.

Other species found on other shore visits included the red alga *Porphyra linearis* on Whitby seawall. This year there were large quantities of other species in this genus, principally *P. dioica*, on the rocks near Uppgang Ravine which can be gathered to make laver bread or nori. On a visit to Skinningrove in October, slightly outside the Whitby Naturalists' Club recording area, a lucky find under a rock in a rock pool was a large sea lemon (*Archidoris pseudoargus*) around 10cm long. It was snacking on its preferred food the breadcrumb sponge (*Halichondria panacea*).

Identification of some species is not possible without recourse to a binocular or even a compound microscope to look for key features which cannot be discerned with the naked eye. The rewards of using a microscope are great

and the beauty of the organisms revealed under low or high power magnification cannot be emphasised too strongly. Examination of a sample of the red seaweed, carageenan, (*Mastocarpus stellatus*) with a binocular microscope revealed the presence of a small, well camouflaged isopod (*Idotea granularis*) alongside a small snail (*Rissoa parva*) plus some gut weed (*Ulva intestinalis*) growing on the red seaweed with mussel spat interspersed amongst the gut weed. This was a microcosm which would otherwise have gone unnoticed. Magnification is necessary to reveal the characteristic intercalary growth pattern of the green seaweed *Cladophora sericea*. Sand trapper seaweed (*Rhodothamniella floridula*) occurs on shores where sand and rock are found together, as at Runswick Bay and Boggle Hole, and is easily identified *in situ* where it forms a spongy carpet. Under low power magnification the seaweed structure becomes clear as a mass of small pink filaments often with many small snails (*Rissoa parva*) amongst them. Increase the magnification to high power and the branching pattern, cell structure and reproductive structures (tetraspores) are revealed. There are several species of the red algal genus *Ceramium* which all have the characteristic forcipate tips which can be seen with a hand lens but a compound microscope is necessary to see the characteristic banding and spines of *Ceramium echionotum*.

Several organised shore visits in 2014 plus a number of impromptu trips down to the harbour at Whitby and the shore at Saltwick Bay have revealed the wealth of intertidal species to be found on the shores in VC62. Further field meetings are planned for 2015 to which everyone is invited. Seashore records will be uploaded to the National Biodiversity Network website.

Jane Pottas

FUNGI RECORDER'S REPORT

After a busy centenary year, 2014 saw much less fungus recording activity. Some interesting records were contributed by Wendy English and Chris Hansell, for example *Melampsora populnea* on dog's mercury, and possible *Daldinia loculata* on birch bark, but, for this report, I will focus on two particularly unusual species. Both are ascomycetes. That is to say they belong to a huge division of the fungi characterized by producing sexual state spores in a special sac. A few ascomycetes, like morels and truffles,

are larger and more-familiar to field naturalists. Many are lichen-forming. The remainder, including the two in this report, are microscopic.

The first is *Phoma macrostoma* Mont. It seems not to have been recorded previously from North Yorkshire, although there are seven records from West Yorkshire, and it is common enough in the British Isles, with over 150 records since 1907. It usually occurs on or in living or dead leaves and stems of a wide range of plants including, for example, box, chestnut, clematis, holly and pear. Its minute sporulating structures require a good compound microscope.

Phoma macrostoma causes a conspicuous disease of *Cirsium arvense* (L.) Scop., the creeping thistle. Symptoms are particularly unusual. Most fungus diseases of herbaceous plants take the form of leaf-spots, or discolouration and dying of stems, but *Phoma macrostoma* causes upper parts of infected thistles to turn ghostly white. The disease is so conspicuous that with practice you can spot it on roadside thistles from a car (colour picture 2).

Creeping thistle is a common plant and a weed in many areas of Europe including Britain. It was introduced to North America, probably in the late 1700s, and causes many problems for farmers there. This fungus has therefore been investigated as a potential biological control. Results were so encouraging that it is now registered as such in Canada. Over the past five years, its natural distribution in Britain has been surveyed in the hope that here too it could be used to control creeping thistle.

That survey found *Phoma macrostoma* from many different locations south of a line between the Wash and the Severn estuary, with a concentration in the Portsmouth area. This led to the interesting hypothesis that introduction to North America may have been in hay transported by the navy for military horses in the years leading up to the American War of Independence.

Cut, as they say in movies, to Whitby. Last year, around the time of our centenary bioblitz, as I was going up towards Guisborough, just after the first turn to Aislaby, I noticed creeping thistles with pale (“bleached”) tops by the side of the road. It was a fleeting glimpse as I was behind the wheel at the time, and the observation was not followed up. I mentioned it, however, to a colleague involved in the survey, and he expressed surprise because, although many searches were made north of the Wash-Severn line, no diseased thistles were found. In short, he was sceptical. The survey team

believed this fungus co-evolved with creeping thistle on glacial deposits south of the Wash-Severn line at the end of the last ice age.

This year, therefore, I asked Members of the Club to look out for “bleached” thistles. You did me proud! Enough records came in to establish without doubt that *Phoma macrostoma* is present at several locations near Whitby (photo). The survey has accepted these records, although with some chagrin, as they cast a shadow over the beautiful co-evolution hypothesis. The questions now are: how did the fungus get to North Yorkshire (does anyone here import hay from, for example, East Anglia?) and is it static or spreading? I am hoping that, in 2015, Club Members will continue to supply records of “bleached” thistles, so that we can monitor populations and observe any changes in distribution.

The second fungus, like *Phoma macrostoma*, seems to be a new record for North Yorkshire, but the habitat where it was found could hardly be more different. The summer of 2014 was made particularly memorable for your Fungi Recorder because the ceiling of his front room suddenly and unexpectedly fell down. As a result, total redecoration of the room was necessary. While stripping wallpaper, I discovered a damp patch caused by a leak in the bathroom above: problems, like buses, come in groups. The back of the wallpaper, and the rotten plaster behind were black with mould. I decided to investigate.

A microscope slide, a drop of water, a light scraping of wallpaper, and a coverslip enabled me to examine the mould. I saw a huge number of subspherical to pear-shaped or irregular brown spores. Each spore was up to 40 μm (thousandths of a millimetre) long and made of several cells, with external walls covered in minute warts. There was a paler cell towards the base, clearly the point of connexion to the cell which had produced the spore. Some spores were still attached. The parent cells themselves were tiny, with no obvious morphological adaptation for lifting spores up off the material on which the fungus colony was growing (photo - the much smaller pale and globose single-celled spores are from a species of *Penicillium* Link, which was also present) (colour picture 4).

Those rather limited features led me, after some head scratching, to *Monodictys castaneae* (Wallr.) S. Hughes. This little fungus has been recorded from Britain only about 20 times, the earliest observation being in

the 1830s. Most British records, including the only one from Yorkshire (near Hull), are on dead plants, but one observation, in 1985 from a damp wall in Richmond (Surrey) convinced me I was on the right track.

With a little more searching, I found further records from Egypt, France, Germany, India, the Netherlands, South Africa, the USA, and Uzbekistan. In some, the fungus was growing on dead plants, but in others it was on a wide range of artificial materials including butter, linoleum, paper, plaster, sacking, and damp walls. It would be nice to tell you, particularly given my claim to be a conservationist, that a new damp wall was found to re-house this beautiful little fungus (the plumbing leak has been sorted), but I confess it now only survives as a specimen in a fungal reference collection.

David Minter

LEPIDOPTERA RECORDER'S REPORT

The butterfly season got off to a fantastic start in 2014. The very mild winter (we only had snow once) allowed good numbers of hibernating butterflies to survive until spring. Small tortoiseshells and peacocks were seen in very good numbers, a peacock as early as 16 February in Glaisdale. On 9 March overwintered comma, small tortoiseshell and a solitary brimstone were all seen in Arncliffe Woods, Glaisdale. Wendy English spotted a speckled wood near Runswick Bay on 16 April and small white, green-veined white and orange tip were seen in Lealholm the same week. Dingy skipper and wall brown were on the wing by 16 May and Wendy English saw a small copper at Robin Hood's Bay on the 17 May. Dingy skipper was confirmed as a resident butterfly at Uppang Ravine by Wendy in June alongside a painted lady. On 20 June I recorded large heath at Fen Bog and Wendy saw a common blue at Uppang Ravine. Alan Ritson also reported a painted lady and a red admiral at Sleights in June. However, the highlight of the year was when Wendy English reported 5 or 6 clouded yellows on the cliffs near the Abbey, supported by a lovely photo. Clouded yellows are migrant butterflies, rarely seen this far north. I have never seen one and last year only 2 individuals were seen in the whole of VC62, so seeing so many at once is quite remarkable!

A very cold August finished off a lot of butterflies and autumn was very quiet.

As far as moths are concerned I saw my first one on 14 January, it was an aptly named early moth. I managed to record a few new species at Lealholm in 2014 namely: oak nycteoline, white pinion spotted, puss moth and silky wainscot (colour picture 10). Other moths reported to me were a small magpie (Whitby) by David Minter, a cinnabar moth by Mary Shorter, yellow shell by Wendy English and a humming bird hawk-moth in Sleights by Alan Ritson. Alan also reported seeing a lunar hornet moth, but this species is so rare in VC62 that a photo is required for a positive ID. Shame.

I would like to take this opportunity to thank all members for reporting their sightings to me and I'm looking forward to helping members with any moth photos that they need identifying in 2015.

Graham Featherstone

OTHER INSECTS RECORDER'S REPORT

Ephemeroptera (mayflies) and Plecoptera (stoneflies)

These two orders have aquatic larval stages. They are being monitored to measure water quality in the Esk. Local fly fishers who can recognise the adults have been contributing records.

Diptera (true flies)

In good weather in summer large numbers of cluster flies can be a nuisance by entering houses and collecting in large numbers round windows. I experienced them this year in a loft after the roof window was opened for ventilation.

Hover flies have also been abundant this year. They are usually easy to recognise as a group since many have wasp like stripes on their backs but they are quite difficult to identify to species.

We have had a lecture about horse flies, warble flies and bot flies, another group of this order. There is an expert in the Ryedale Natural History Society if you wish to take an interest.

Odonata (dragonflies and damsel flies)

The club ran a workshop on these beautiful insects in June. We used the pond at Calla Beck reserve for the field trip. A field trip in July, organised by

the Yorkshire Dragonfly Society at Jugger Howe, was attended by some of our members.

Species recorded throughout the year:

- **Azure Damsel Fly**, *Coenagrion puella*. A, B, G.
- **Black Darter**, *Sympetrum danae*. C, D.
- **Blue Tailed Damsel Fly**, *Ischnura elegans*. G.
- **Broad Bodied Chaser**, *Libellula depressa*. A, C.
- **Common Blue Damsel Fly**, *Enallagma cyathigerum*. A, D, G, H.
- **Common Darter**, *Sympetrum striolatum*. A.
- **Common Hawker**, *Aeschna juncea*. C, D.
- **Emerald Damsel Fly**, *Lestes sponsa*. C, D.
- **Four Spot Chaser**, *Libellula quadrimaculata*. C.
- **Golden Ringed**, *Cordulegaster boltonii*. B, E.
- **Large Red Damsel Fly**, *Pyrhosoma nymphula*. A, B, H.
- **Keeled Skimmer**, *Orthetrum coerulescens*. B.
- **Ruddy Darter**, *Sympetrum sanguineum*. C, D, F.
- **Southern Hawker**, *Aeschna cyanea*. A.

Key: A = Calla Beck; B = Jugger Howe; C = Cook Pond; D = Stony Marl; E = Cock Heads Moor, Glaisdale; F = Sandsend; G = Abbey Pond; H = Blue Bell Pond, Ravenscar.

Hymenoptera (bees, sawflies, wasps)

An alien bee made its appearance recently. The tree bee (*Bombus hypnorum*) was first reported in the UK in the summer of 2001 from a specimen found on the Hampshire/Wiltshire border. In the years immediately following its discovery, it appeared regularly in the Southampton area, and new populations were found in Hertfordshire. Since 2007, there has been a massive expansion of range and recorded abundance. Records have come in from as far north as Northumberland, and as far west as South Wales.

On continental Europe, the species is widespread and plentiful and can be found even on the Kola Peninsula in Arctic Russia. Primarily, it is a bee of lowland sites, and is strongly associated with parks and gardens. It is predominantly an early season species. The queens emerge from

hibernation in February or early March, and workers are active throughout early spring. The species is at its most obvious in late May and June, when colonies are producing males. A partial second brood is active in summer.

Bombus hypnorum regularly establishes colonies in cavities above ground, and this includes roof spaces, rot holes in trees and in bird nest boxes (it was found using an unused nest box in my garden in Beech Grove). The bees are found in a variety of habitats, from woodlands, road-side verges and scrubby grasslands, to town parks, gardens and allotments. The bees are regularly found visiting flowers of fruit trees and fruit bearing plants such as bramble and raspberry, where they can be effective pollinators and improve crop yield. The bee has the potential to colonise the whole of Great Britain, and is unlikely to impact negatively on other species.

Some hymenoptera are quite spectacular. The horntail is also known as the 'giant wood wasp' or 'greater horntail' and is a massive sawfly. A relative of the wasps, the female is black and yellow and has a long 'sting'; this is actually her ovipositor through which she lays her eggs into wood, especially pine. The larvae live in the wood of pine trees, where they spend up to five years developing, feeding on a symbiotic fungus. Found near pine woods, or places where pine timbers are used. A female horntail was found on Jugger Howe by Chris Hansell.

Hemiptera (bugs e.g. waterboatmen)

Shield bugs are not uncommon. The parent bug (*Elasmucha grisea*) was found on Jugger Howe. Cuckoo spit has been very common this year. The spit is formed by the juvenile frog-hopper (*Philaenus spumarius*) as a protective bubble to prevent predation and dehydration. Waterboatmen and back swimmers are present at Fen Bog; can you find them in other ponds in the area?

Coleoptera (beetles)

I have received no records this year, so can you contribute next year? Your garden could supply quite a lot of names. You never know - you might find a rare one.

Contributors of records: Wendy English, Alan Ritson.

Alan Ritson

OTHER INVERTEBRATES RECORDER'S REPORT

Invertebrates (other than insects) include a vast number of separate groups of animals. This report will list some of these from freshwater and terrestrial environments to show the possibilities for becoming actively involved in recording them. The Club's Sea & Shore Life Recorder, Dr Jane Pottas, deals with marine invertebrates (barnacles, jellyfish, limpets, starfish, urchins, whelks etc.).

Annelida (leeches and worms)

We had a workshop last year to help participants to identify the common earthworms. The information is still available and worms are found everywhere. There will be at least half a dozen species in your own garden.

Arachnids

During Pannett Park open day we had a stall with information about the Club, with a number of recorders and other staff on duty. The Club microscopes were deployed and attracted a lot of interest. One of the specimens brought in was a house spider *Tegenaria domestica*. This is a medium sized spider very common round houses and sheds etc. Several records of the garden spider (*Araneus diademata*) were submitted from the moors near Jugger Howe.

Crustaceans

The commonest terrestrial crustacean is the woodlouse. There are over 45 native or naturalised species of woodlouse in the British Isles, ranging in colour and in size (3–30 millimetres or 0.1–1.2 inches). Of these 45 species, only five are common: *Oniscus asellus* (the common shiny woodlouse), *Porcellio scaber* (the common rough woodlouse), *Philoscia muscorum* (the common striped woodlouse), *Trichoniscus pusillus* (the common pygmy woodlouse), and *Armadillidium vulgare* (the common pill bug). Which of these have you got on your property?

Eight species of invertebrates listed in the Bern Convention are found in the UK. The fresh water pearl mussel (*Margaritifera margaritifera*) is one of these and is found in the River Esk. Its status is the concern of Simon Hirst of the NYNP, and he is working on conservation of local populations. The white clawed crayfish is another of these eight species. Both are found in

the SAC (special area of conservation) of Arnecliffe and Park Hole woods. Since this SAC is also the site of the Killarney fern what other species might be uncovered in the other ancient woodlands in our area?

Centipedes and millepedes

No records.

Molluscs (slugs and snails)

This has been a good year for these animals; the weather has been generally warm and moist. We have had a report of a giant slug found in a garden in Whitby. *Arion vulgaris* also known as the Spanish slug or cannibal slug will eat anything from plants to excrement and each other. A large grey slug (*Arion cinerioniger*) was found on the moors; it is about 3 inches long, bearing a series of black patches down each side of a prominent keel. It is a relative of the zebra slug (recorded from Arnecliffe Wood).

Contributors of records: Wendy English, Alan Ritson.

Alan Ritson

LOCAL HISTORY RECORDER'S REPORT

In this brief report, I will mention some of the projects that I have been working on this year. In the spring, the Club hosted a visit to the Museum by Mrs Audrey Leach, one of our honorary members, who was having a trip down memory lane to the town where she spent so many happy years with her late husband Graham Leach. I'm sure Graham would have been very interested in the presentation I gave to the Club about 'the Bombardment of Whitby in 1914'.

I spent some time helping with the Coliseum 'Whitby, Then and Now' project that involved a number of schools in a splendid presentation at the Spa. The results can be seen on the Google "Historypin" website. The Coliseum group has now embarked on a larger project to photograph all the houses within the 'Conservation Area' and we will try to record some of the history of the more important buildings.

My major project of the year, and I suspect the next 2 or 3 years, is to computerise the 'Percy Burnett' archive in the Museum. From 1930 to the mid-1950's Percy was the major driving force within the Whitby Naturalists'

Club being Secretary, Treasurer, Meetings Organizer, Botany Recorder and many other things besides. I think he realised by the mid-1950's that Local History had become his passion, perhaps 'obsession', and he resigned from the Naturalists to spend his time researching and recording the history of the town. In the days before computers, his methods depended on whether his research material could be cut up and pasted into a file or not. If they were only loaned, he would copy out the information by hand into what eventually became known as the 'Brown Books'. These contain about 10,000 pages of his hand-written notes for which there is a small useable index in the Lit. & Phil. Library. If the research information could be retained, he filed them into what are known as the 'Blue Cuttings files'. These contain about 20,000 sheets in 115 different files. The 'Brown books' and 'Blue files' were purchased from Mr Burnett's widow after his death in the 1970's for what I understand was a considerable amount of money at the time.

There was no index to the 'Blue File' cuttings and any researcher had, for a long time, to simply surf all 20,000 pages to find their topic. Some years ago, a brave lady called Roma Hodgson decided she would create an index. She read the whole of the 'Blue File' archive and has written an index for each folder. Added together, this index totals to about 1200 pages, a significant improvement for any researcher.

When I discovered that, for health reasons, I could no longer walk the Yorkshire Moors and record all the plants for the Botany world, I opted to volunteer in the Museum library. Having found out about the Burnett archive, I decided that, in this modern day, the 'Blue files' needed computerising. This involves me typing into a 'spreadsheet' all the 1200 pages of the index. This will allow the use of the computer process known as 'word-search' to identify all the possible page numbers where a particular subject can be found. This still has the great disadvantage that for every page it would be necessary to get out the file from the archive and check if the information was of interest. These files are now, after about 50 years, becoming quite fragile, so I decided I would take a low grade photograph of every page and combine these with the spreadsheet using the computer process known as 'hyperlink'. Only 20,000 photographs!, each with the necessary filing and cropping and naming. You'll remember the question "How do you eat an elephant?".... The answer is 'One bite at a time!' I'm about one fifth of the way through after a hard year's work!

The saving grace of this project is that I'm coming across some interesting little gems of information that break up what can be mind-blowing days. One recent one was a photo of Frankland's Coffee House that used to stand in the 'Potato Market' in Church Street prior to the 1930's when it was demolished (picture 1). My late mother used to tell me about this building and it was good to see the photo that I have included in this report. Another recent gem was the 'brief' for a court case between the Cholmley family and the Moorsom family over who owned the rights to the riverside upstream of Spital Bridge. This case was in 1814 and gives a fascinating insight into the life of Whitby 200 years ago.

Mike Yates

WEATHER RECORDER'S REPORT

Overall the year 2014 has been remarkably warm, almost on a par with 2011, which was the warmest year since regular records began over 70 years ago. Every month except August was warmer than normal.

The first two months of 2014 were mild and very wet giving almost double the normal rainfall. March and April were dry and warm but May, although warm, was exceptionally wet with 2.5 times the normal rainfall, the wettest since 1979. June and July were rather warm and dry but August was wet and cool, the coolest since 1993. Despite the rain (there were two days with more than 30mm), it was the sunniest August since 1975!

In September the temperature was about average but the month was very dry. October and November were mild with about normal rainfall. Overall December has been rather mild but with some short cold snaps. It was remarkably dry and sunny, in fact the driest December since 1988 and the sunniest since records began.

Another interesting fact is that the annual average soil temperature at 30cm depth was 1.0°C above normal and the highest ever recorded. Extreme values for 2014:

Highest temperature:	26.0°C (26 July);
Lowest temperature:	-3.6°C (24 March);
Most rainfall:	37.3mm (10 August);
Most sunshine:	14.9h (18 May).

		temperature °C	+/- normal °C	rainfall mm	%normal	sunshine h	%normal
2013	Dec.	6.0	+1.2	58.8	81	66.7	131
2014	Jan.	5.2	+0.7	112.7	194	58.9	100
2014	Feb	6.0	+1.4	88.5	200	113.6	136
2014	Mar	7.4	+1.0	31.7	67	147.9	121
2014	Apr	9.5	+1.5	40.3	84	143.5	93
2014	May	11.9	+1.3	100.1	257	192.5	93
2014	Jun	14.4	+0.8	39.6	69	183.6	98
2014	Jul	16.5	+0.6	40.7	81	228.2	115
2014	Aug	14.9	-0.8	94.1	162	239.7	131
2014	Sep	13.7	+0.1	21.2	39	107.7	74
2014	Oct	12.0	+1.5	62.8	104	122.8	111
2014	Nov	8.9	+1.8	68.4	94	53.8	77
2014	Dec	5.0	+0.2	35.1	48	84.7	167
2013/4	Winter	5.7	+1.0	260.0	149	239.2	124
2014	Spring	9.6	+1.3	172.1	128	483.9	100
2014	Summer	15.2	+0.1	174.4	105	651.5	115
2014	Autumn	11.6	+1.2	152.4	81	284.3	87
2014	Annual	10.5	+0.9	735.2	111	1676.9	94

The values in the table above are compared with the 1981-2010 averages. Meteorologically winter is December-February, spring is March-May, summer is June-August and autumn is September-November.

Peter Wallace

MICROBES & PROTISTS RECORDER'S REPORT

This area of the Club's recording activities is both new and old. It's new because the Club needs to take account of recent scientific discoveries if it is to stay vibrant and up-to-date, and there is no doubt that microbes & protists belong in biological kingdoms never before explicitly covered by the Club. But it's also old, because there are records of at least some of these organisms from the Whitby area going back over many years.

Club Members who visited our Centenary Exhibition at the Whitby Museum in 2013 will have seen one panel which tried to explain the full extent of the diversity of life. That panel showed that microbes & protists, collectively, are thought to contain more diversity than all of the rest of the living world put together. It's a daunting thought!

What is meant by "microbes & protists"? They are organisms which are not animals or fungi or plants. They belong in several separate kingdoms of their own, although even now scientists are not exactly sure how those kingdoms should be defined. For the present purposes of our Club's activities, it will be enough to think in terms of three kingdoms: Bacteria, Chromista and Protista, to give them their formal names.

Everyone who's ever had a sore throat is familiar with bacteria. Most of the species we come into contact with are associated with human and animal diseases. But there are many other species, for example those used to produce yoghurt and other fermented milk products. Clearly identification of these species is not practical without a specialized laboratory and appropriate facilities for chemical and other tests, and there is no real prospect of the Club doing much recording in this area - although if you have an interesting bacterial infection, it could count as a valid record! It may not be widely known, however, that more than one of the Club's Members has experience in this field, and at least one peer-reviewed scientific paper, about rock-inhabiting bacteria near Boulby, has been authored by a Club Member.

Marine Chromista and Protista include many diatoms and seaweeds, and these are the preserve of Jane Pottas, our Sea & Shore Life Recorder. I will not attempt to describe them, but will merely write about their freshwater and terrestrial relatives, which it is my duty to cover.

The Chromista are, at least on the face of it, less familiar, until you remember that potato blight, one of the most significant plant diseases in history, is caused by one of these organisms. Usually and incorrectly described as a fungus, *Phytophthora infestans*, the potato blight organism, is in fact a chromistan. Those of you who have done any gardening, or kept an allotment, are likely to have crossed paths with at least one chromistan. Another group of chromistans which are not damaging to human crops, and which are very beautiful, are the freshwater algae and diatoms. Having

actually found one once myself, in Calla Beck, I am hopeful that we can start to record them as a Club.

Protista are different yet again. They are microscopic and have such a wide range of forms that, at different times, different members of this kingdom have been classified with the algae, the animals, the fungi and the plants. It's now understood that they are none of these, but belong in their own special group. Some of the easiest Protista to study are the myxomycetes or slime moulds. Despite their off-putting name, these organisms are the starlets of the natural world - often incredibly photogenic. They are also rather easily found - there are many records from the Whitby area, including two in the past year: the wolf's milk slime mould, *Lycogala epidendrum*, found by Chris Hansell and the cheerfully named dog's vomit slime mould, *Fuligo septica*, found by Wendy English.

I'm hoping that, with names like that to entice them, Club Members will be up for making a search for some of these organisms during one of our forthcoming field meetings!

David Minter

FRESHWATER FISH RECORDER'S REPORT

As this new Recorder position is still vacant, your Chairman has taken up his pen, or rather tapped on his keyboard, to produce a few words. Given that Whitby is at the mouth of one of England's cleanest rivers, well known for its salmon and trout, and given the presence of Scaling Dam and its lake, it seems almost amazing that the Club did not have a focus for the recording of freshwater fish. What species are present in the Whitby area? Using the National Biodiversity Network website, I've found records of the European eel, *Anguilla anguilla* from this corner of North Yorkshire - hardly surprising, given its wide distribution - but the common bream, *Abramis brama*, is not reported for our area on that website. Does it also occur? Are there really no pike in the Esk? Is the Esk Valley just about the only place in eastern England where the stickleback does not occur? This is something we as a Club need to get our teeth into. Does anyone in the Club have a list of local freshwater fish? We need a volunteer to get this ball rolling.

David Minter

REPORT OF THE CONSERVATION SUBCOMMITTEE

The proposed new mine for polyhalite has been the principal concern of our Conservation Subcommittee. The Club's stance on this proposal remains unchanged. Our ideal is that the natural environment is undamaged by developments of this kind, and we support the stance that such a development, in our National Park should not go ahead unless a convincing case can be made that it is in the national interest. From that position, we have been anxious to maintain a constructive dialogue to ensure that any proposal submitted to the planning authorities involves minimal environmental damage. In 2013, the Club responded to the first version of the proposal by opposing certain aspects which we considered were unacceptable, in particular the plan to transport the mineral from the mine head to Teesside by pipelines which would have entailed a 50 km trench being dug right across the National Park. An account of the Club's response can be found in our 2013 Annual Report.

That idea has, thankfully, now been shelved, and the revised proposal involves a deep tunnel with some sort of conveyor system. The amounts of rock to be moved are similar, but there will not be the scar of a trench. Instead, a small number of spoil heaps are proposed where the dug out rock will be accumulated. The proposal envisages hiding these spoil heap sites using trees, some already in place. This new proposal is not as disfiguring as the first one, but it will undoubtedly bring other issues in its wake if it is implemented. The mining company has spent large amounts of money preparing this revised proposal - the documentation fills more than 4 gigabytes of computer storage - and it is challenging for a small Club like ours to have to sift through such material, looking to see if anything has been overlooked which might turn out to be environmentally disastrous.

We must bear in mind that the proposed mine is not the only major environmental threat our area faces. It is only little more than one year since Lord Howell, the government's former advisor on energy policy, said that fracking is acceptable in northeast England because the area is "desolate". Such words tend to come over as rather disheartening to those who love our beautiful National Park and want to protect it from the environmental destruction which fracking is likely to bring. One of the questions we are asking is, "can fracking be carried out in the same place and at the same

time as a polyhalite mine is operating?” If the answer is “no”, and we have to have one of them, which of the two is environmentally less damaging?

At the other end of the scale from these huge questions, there are smaller but equally real conservation issues. Prompt action by Wendy English, Christiane Kroebe and the Subcommittee Chair brought the plight of the narrow-leaved everlasting-pea, *Lathyrus sylvestris*, to the attention of Mulgrave Estate. Details can be found in the Plant Recorder’s Report. A more recent concern is possible encroachment of the tiny patch of saltmarsh at the base of Calla Beck. As this is the only saltmarsh on this coast for many kilometres on either side, this is something the Club needs to investigate.

Alan Ritson & David Minter

**ALUM & AMMONITES
THE LIFE OF LEWIS (LOUIS) HUNTON, 1814–1838**

The Geological Society

In 1836, the honourable members of the Geological Society gathered in their headquarters in London to hear the reading of a scientific paper submitted to the Society by a twenty-two year old man from Loftus, Yorkshire (now East Cleveland). This scientific treatise (on biostratigraphy - a term not yet then invented) had the long and rather ponderous title of:

‘Remarks on a section of the Upper Lias and Marlstone of Yorkshire, showing the limited vertical range of the species of Ammonites, and other Testacea, with their value as Geological Tests.’

The author of the paper was a young man called Lewis Hunton (he was later to use the French spelling of Louis for his forename), the son of William Hunton, who was manager and agent of the Loftus Alum Works, also known as Lofthouse and Lingberry Alum Works. One could say alum ran in the family’s blood: Lewis’s grandfather, William Hunton Senior, had also worked for much of his life at the alum works. The epitaph on the gravestone of Lewis’s grandfather in the churchyard at Loftus is inscribed with the words:

‘Erected to the memory of William Hunton late Alum maker of Loftus Works who departed this life January 25, 1809 aged 48 years; whose

example for honour and industry was wholly worthy of imitation. In gratitude to his memory his son [Lewis Hunton's father] caused this stone to be erected.'

The Alum Industry

The alum works was in operation for over two hundred years from the 1650s to the 1860s. Alum is a complex double salt of aluminium sulphate and ammonia or potassium sulphate. It has a chemical formula of $\text{KNaAl}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$. It is processed as large crystals and then finally crushed to a fine white powder to produce the finished product. The processing and production of alum was one of the first major industrial operations in the country. Alum was greatly valued as an effective mordant or fixative in the cloth dyeing industry and the brightly coloured and colour-fast materials that alum made possible demanded premium prices. Alum also had many other uses such as in the preservation of leather, in the paper manufacturing process, and for hardening quill pen nibs. It continues to have numerous uses today some of which are as a flocculant for water purification, in deodorants and aftershave lotions, as an ingredient in baking powder, and as a fireproofing agent for treating materials.

In the Hunton family's time, the alum works was owned by the Earl of Zetland, a rich aristocrat whose seat was at Aske Hall, Richmond in North Yorkshire. He owned extensive landed estates in East Cleveland and properties in the Redcar and Marske area, including Marske Hall (now a Leonard Cheshire Home). The oldest existing lifeboat in the world is named after Zetland and is housed at Redcar.

Hummersea House, Loftus

Lewis Hunton was born in 1814 at Hummersea House, a stone-built property that still stands today in an exposed position high on the coastal cliff tops to the north of Loftus (the house is now the home of the folk singer and songwriter, Vin Garbutt). Hunton was baptised on 6 August that year at St Leonard's Parish Church, Loftus. In the graveyard at the church can be found a commemorative stone to Lewis (he died in France and is buried there), along with the gravestones of other members of the Hunton family. Unfortunately the inscriptions are now almost indecipherable due to erosion from the elements.

Little is known about his childhood or his early formal education although it is known that in 1833 at the age of nineteen he was a part-time student at the King's College, London where the eminent geologist, Charles Lyell lectured. It is not known, however, whether Hunton studied under him. In 1835, he is also known to have studied comparative anatomy, fossil zoology, and natural philosophy for one year at University College, London. His tutor at UCL, Dr Robert Edmond Grant, was an early controversial advocate of natural evolution of the animal world and his teachings may have influenced the young scholar's thinking, although this is supposition.

Ammonites and Other Fossils

It is most probable that as a young boy, Lewis Hunton would have had unrestricted access to the alum shale quarries that were under his father's control and therefore he would have the opportunity to explore the exposed strata that contained the fossils that fired his imagination and in which he became so interested. In particular, he would have discovered the various ammonites that were to become such an important feature of his scientific paper. These animals evolved quickly and consequently the shape and structure of the fossils they left behind indicate relatively rapid change through successive layers (strata) of rock thus enabling each species to be used to identify quite narrow bands of rock accurately. When describing in his paper the Upper Lias and Marlstone he had examined, Hunton drew attention to the limited vertical range of many species, and remarked:

‘But of all organic remains, the Ammonites afford the most beautiful illustration of strata, for they appear to have been the least able, of all the Lias genera, to conform to change of external circumstances.’

From his meticulous close study of the various fossils deposits, and especially those of ammonites, he deduced that they could be used as a reliable indicator of each different and distinct layer of the rock strata no matter where they appeared. The technique of using fossil remains to accurately identify various strata was not Hunton's original idea, but had, in general terms, been proposed a few years earlier by the famous geologist William Smith. However, it was Lewis Hunton who brought rigour to the theory and in his scientific paper of 1836 he made two specific statements that were of crucial importance and have had a profound impact on the

branch of geology that has become known as biostratigraphy. These statements were:

‘...the position of no one species was fixed till after several had been extracted from ... this section, as well as in various different localities from the Alum Hills fronting the Vale of Thirsk, to the Peak [Ravenscar] near Whitby ...’

‘... one great source of error has hitherto been the collecting of specimens from the debris of the whole formation, accumulated at the foot of cliffs ... and inferring of their position from the nature of the matrix ...’

In short, multiple specimens must be taken, from multiple locations, and the fossil specimens must be taken from ‘in situ’ positions in the strata, that is, from locations where the residual fossils had originally been laid down naturally millions of years ago. This method, proposed by the young Hunton, is now the foundation and basis of all scientific geological field work.

Premature Death

Lewis Hunton’s life was cut tragically short by tuberculosis at the age of twenty-four. He died in the Auvergne region of France, near to Nîmes in 1838. He is buried in France (although this requires confirmation). His untimely death was just two years after his ground-breaking and seminal scientific paper had been submitted to the Geological Society. Perhaps it is because of his early death, Hunton does not receive the acclaim and recognition that he deserves for his highly original and influential scientific work. If Hunton had gone on to have a greater life span, it is not unreasonable to speculate that this talented young man from Loftus in East Cleveland would have become famed as one of the most eminent scientists of his day and his name lauded as are those of other great scientific thinkers of his times.

Acknowledgements and References

- Appleton, P. (2011). The Loftus Alum Makers – The Life and Legacy of the Hunton Family.
- North East Yorkshire Geology Trust (NEYGT).

- Oxford University Museum of Natural History.
- The Geological Society, Burlington House, Piccadilly, London.
- Tees Valley Wildlife Trust website.
- Wikipedia.

Albert Elliot

Editorial note. The above article was produced by Albert Elliot, a member of the North East Yorkshire Geology Trust, and was submitted by the Club's Geology Recorder as part of his report. It provides an excellent introduction to the life and work of Lewis Hunton, and promotes the following project, which our Members may find interesting.

The Lewis Hunton Project – a life worth celebrating. To mark the bicentenary of Lewis Hunton's birth in 1814, and with support from the North Yorkshire Moors Association, the North East Yorkshire Geology Trust, led by its director, Mike Windle, has devised this project to recognize and celebrate Hunton's bicentennial and the seminal contribution he made to geology during his short life. The project will involve numerous events and activities such as public walks and talks, Geonaut Clubs for local school children, community involvement, a trail guide, and internships for students. The Trust will also seek to commemorate Hunton with 'blue plaques, an interpretation board, and a travelling exhibition.

Can you help? If you have any information about the life of Lewis Hunton and his family [including any present day relations] or about his work in the form of memorabilia such as letters, songs, rocks, fossils, maps, paintings and drawings, please let us know. We are especially keen to find an image of Lewis Hunton or a facsimile of his signature. Thank you.

If you would like to know more about the project, or to become involved in the Trust's work, please contact: Mike Windle, Director, North East Yorkshire Geology Trust, The Geology Records Centre, 5 Station Workshops, Station Road, Robin Hood's Bay, Whitby, North Yorkshire YO22 4TG. Telephone: NEYGT Office: 01947 881000. Mobile: 07717 538058. E-mail: mike@neyorksgeologytrust.com. Website: www.neyorksgeologytrust.com.