

The *Naturalist*

December 2013
Volume 138
Number 1064



Journal of Natural History for the North of England



The Naturalist

Vol. 138 No. 1084 December 2013

Contents	Page
Terry Whitaker, President of the YNU 2013-2014 - an informal biography	161
River Aire Fish Populations 2012 Kevin Sunderland	163
Yorkshire Ichneumons: Part 1 W.A.Ely	180
Gains and losses of the <i>Andrena</i> and <i>Panurgus</i> mining bees (Hym., Andrenidae) in Watsonian Yorkshire* M. E. Archer	188
Robert Wynne Owen (1924-1985) and his parasitological collections at Leeds:	192
1. Microscope slides and fish parasites R. A Baker, C. Bradley and P. J. Mill	
A provisional vascular plant red data list for VC63 (S.W. Yorkshire)	203
The first season's fieldwork - a review G.T.D. Wilmore	
Field Note: Guinea Pig in the North York Moors Chris and Helen Pellant	206
Field Note: A new colony of Heath Snail <i>Helicella itala</i> David Lindley, Terry Crawford and Adrian Norris	207
The millipede <i>Chordeuma proximum</i> in Yorkshire: a new county record A. A. Wardhaugh	208
Cross Hills Naturalists' Society Tom Clinton	209
Ox Close Wood and the East Keswick Wildlife Trust Melanie Smith and Margaret Moseley	212
Yorkshire Naturalists' Union Excursions in 2013 Compiled by Albert Henderson and Adrian Norris	221
YNU Calendar 2014	240
Erratum: p191	
Book review: p220	
YNU Notices: p219, 239	
Letters: p219	

An asterisk* indicates a peer-reviewed paper

Front cover: Detail from the *Light of Creation* window, St. Chad's Church, Far Headingley, showing various animals and plants (see p220). Photo: *Jill Lucas*

Back cover: Thistle Broomrape *Orobanche reticulata* growing in the Ox Close Wood Nature Reserve (see p212). Photo: *Margaret Moseley*

The Naturalist

December 2013 Volume 138 Number 1084

Terry Whitaker, President of the YNU 2013-2014 - an informal biography



I was born in Leeds in September 1947 but as my parents moved around the country I lived in Leicestershire, Derbyshire, Warwickshire and Aberystwyth. My interest in natural history started in Hillmorton, then a rural village on the outskirts of Rugby, where I developed an early interest in wild flowers, raised Grass Snakes and, though now ashamed to admit it, indulged in minor birds' egg collecting. Moving to Aberystwyth I explored the then unspoiled countryside and mountains of West Wales. The seashore was a new and fascinating experience. I fished the rivers and shot in the woods, often in the company of much older countrymen who were great observers of the natural world. As a teenager I bicycled into the hills to observe the nests of the remaining six pairs of UK Red Kites, down to Aberaeron to see the first Collared Doves and

explored the many local lead mines with my bike lamp. On field meetings with members of the West Wales Naturalists I met William (Bill) Condry who became a natural history rôle model for me. At this time he was warden of Ynys-hir RSPB Reserve and writing his book on the Snowdonia National Park which became a classic in the Collins New Naturalist series. My obsession with butterflies and moths developed, raising caterpillars of the then common Garden Tiger, Oak Eggar and Lackey moths. As a grammar school boy I bought a mercury vapour light moth trap and also ran a RIS trap for two years.

Returning to Yorkshire to take Zoology at Leeds University, I spent more time in running the caving club and walking in the Yorkshire Dales than in academic endeavour. At this time I met and became firm friends with a then junior lecturer, Stephen Sutton, who fostered my interest in entomology and expeditions. On leaving Leeds with a mediocre degree and after a spell as a machinist in an engineering works, I went to Wolverhampton Polytechnic to do MIBiol in entomology. My work experience for the course was in the Entomology Department at Rothamsted Experimental Station. This was an inspiring experience. At that time C B Williams was departmental head and the numerical ecologists Roy Taylor and Trevor Lewis were working just down the corridor. Ian Woiwod was then a junior assistant and drinking companion. Having once said I had no interest in marine biology and wanted to work on crop pests, I logically found employment with the British Antarctic Survey as a marine biologist in a fisheries research group where I worked on marine phytoplankton ecology and seawater chemistry and had eleven splendid years seeing most of the interesting animals of the Falkland Islands and the Antarctic Peninsula. During this time I made good academically by writing up my researches for a PhD in Botany at the University of London.

The pull of 'God's own county' eventually overcame the delights of the agricultural desert that is the countryside around Cambridge and I moved to the borders of the Yorkshire Dales where I needed to earn my living as a builder. However, I was able to indulge in caving and walking and get paid for my natural history interests by doing occasional work for English Nature and the Yorkshire Dales National Park. Imagine my surprise at finding that my once junior lecturer, Stephen Sutton, was living just up the road. He was now a senior academic and a President of the YNU and writing Sutton & Beaumont's *Moths and Butterflies of Yorkshire*. He set my feet firmly back into Lepidopteran studies, mainly in Southeast Asia.

Since then I have been exploring the natural history delights of the Dales, interspersed with sporadic caving expeditions world-wide and more regular visits to the Cantabrian Mountains. In the last ten years I became involved full time in biological consultancy and started a project to produce a definitive pictorial guide to the pyralid and thyridid moths of Borneo. Recently I have been involved with Australian, Malaysian and Chinese colleagues in the lepidopteran components of major biodiversity studies in Borneo and China.

Currently I am still avoiding becoming formally retired due to the syndrome of the 'rolling stone having gathered no moss' and I am still working on conservation and survey projects, some paid and some voluntary, in the Dales and around my midwinter home at Matienzo in the Cantabrian Mountains. Like all true biological organisms the Bornean pyralid moth project is now evolving into a web-based identification and taxonomy site (<http://www.pyralidsofborneo.org/>) which will enable me to while away my dotage in front of a hot computer, happily uploading new descriptions.

River Aire Fish Populations 2012

Kevin Sunderland Bingley

ksunderland@ksunderland.fsnet.co.uk

Introduction

The last list of fish in the River Aire was *The Fishes of Upper Airedale* by Wm H Whitaker of Utley (Whitaker 1910). It was far easier to compile an accurate list at that time as there were thought to be no fish populations downstream of Shipley where the grossly polluted Bradford Beck entered the river. The information shown below has been mainly derived from recent Environment Agency (EA) reports, press articles, records in libraries, conversations with anglers and personal observations. A great source of historical information has been the *Pollution Commission Report* (Pollution Commission, 1867). A number of the paragraphs of this report are referred to in this article.

Many stretches of the Aire are relatively inaccessible and remain seldom fished and little surveyed by the EA. This leads to information being biased towards other areas which can then result in omissions of some fish populations. However, it is hoped that the information given here will help to give a reasonable view of the position in 2013.

The typical zonation of Yorkshire rivers, with trout in the higher reaches and Roach *Rutilus rutilus* in the lower reaches is disrupted in the Aire by the presence of thirty or so weirs. These have a big effect on the fish populations due to their pooling effect. The species of fish in the slow deep water above a weir may be completely different to those in the shallow fast water below it.

Current Position

As recently as 1974, Dr D J Shilcock, the then Fisheries Officer for the Yorkshire Water Authority, stated that the fishery on the Aire ended at Esholt (Bradford) and below that there were only sticklebacks (Shilcock, 1974). Since that time, particularly over the last twenty years, there has been a huge improvement in the water quality and there are now fish populations all the way down the river and in most of the tributary becks which flow into it. Investment in sewage treatment, work on combined sewer overflows, regulation of industrial discharges and the collapse of the textile and other polluting industries have all accounted for this improvement.

Two major developments have recently taken place which will have great bearing on future fish populations. One of these is the upgrading of the sewage treatment works at Esholt, Bradford, and Knostrop, Leeds. This work was brought about by the European Freshwater Fish Directive and the primary purpose was to reduce ammonia levels in the effluent from the works. The £75 million scheme at Esholt was completed in late summer 2009 and the staged improvements at Knostrop shortly afterwards.

The other major development is the Humber District Plan of the European Water Framework Directive (WFD), which was signed off by the Secretary of State for the Environment in December 2009. The WFD addresses many problems in Europe's rivers. The EA's commitments in the Humber District Plan include the removal of all artificial barriers to fish migration and the return to all the Humber Region rivers of self-sustaining spawning populations of migratory fish by 2021.

Weirs, hydros and fish passes

Although corn milling weirs have been present on the River Aire since Norman times, it was the Aire and Calder Navigation, founded in 1699, and the Industrial Revolution which followed it, that led to additional and better-maintained weirs being built. These weirs eventually led to the demise of migratory salmonids in the Aire. As mentioned above, the WFD is expected to deal with most of the problematic weirs during the period to 2021. At the present time there are fish passes on the weirs at Fleet, Lemonroyd, Rothwell, Thwaite Mills, Castleford and Rodley. The fish pass at Castleford (See Plate I, centre pages) was opened in 2007 and the one at Rodley as recently as late autumn 2012.

The once very difficult task of restoring migratory fish to the Aire has been made far easier by the removal of numerous weirs. Some were removed for flood relief and drainage purposes whilst others have collapsed and have been removed by the forces of nature. Historic weirs which no longer exist were found at Hunslet Old Mill, Calverley, Esholt Hall, Upper Esholt, Buck Woods, Dowley Gap, East Riddlesden, Stockbridge, Silsden Bridge, Cononley Bridge, Carleton Bridge, Inghey Bridge and Aireton. A list of weirs in 1867 can be found in paragraph 5779 of the *Pollution Commission Report* (1867: para 5779).

The announcement by HM Government on 7 February 2013 that funding has been made available for the Leeds Flood Alleviation Scheme has huge implications for the migratory fish populations of the river. The scheme, scheduled to commence in 2014, includes the removal of the weirs at Crown Point and Knostrop in Leeds. They will be replaced by movable weirs which will include fish passes. As Knostrop Weir has been a virtually impassable barrier to migratory fish, its alteration should have a hugely beneficial effect. Once Knostrop Weir has been altered, the remaining major barrier below Leeds will be the Canal and River Trust's weir at Knottingley, where fish have to wait for suitably high flows before they can ascend. An expression of interest in putting a hydro (a hydro-electricity turbine) on Knottingley Weir meant that Government funding could not be used for a fish pass there as the hydro operator would have been obliged to pay for it. The hydro operator has now decided to withdraw its interest, so funding sources for a fish pass can now be looked for by the Canal and River Trust and other interested parties.

Previous Records

There are few available records of the fish populations prior to the onset of the massive increase in pollution which took place from 1830 to 1850. The best records relate to the Keighley area and the first of these was made by the Reverend Miles Gale, rector of

Keighley from 1680 to 1720. In his manuscript of c1690 but published many years later (Gale, 1815), he stated that in 1690 the local River Aire contained Dace *Leuciscus leuciscus*, Grayling *Thymallus thymallus*, Minnow *Phoxinus phoxinus*, Perch *Perca fluviatilis*, Eel *Anguilla anguilla*, Gudgeon *Gobio gobio*, Brown Trout *Salmo trutta*, Smelt (Salmon Smolt) and Salmon *Salmo salar*.

An anonymous contributor to *The History of the Loyal Town of Ripon* (Gent, 1733) confirmed the above fish to be still present in the vicinity of Keighley but also added Three-spined Stickleback *Gasterosteus aculeatus*, Ruffe *Gymnocephalus cernuus*, Chub *Squalius cephalus*, Bullhead *Cottus gobio* and Pike *Esox lucius*. This list stated that the Aire at Keighley "affords Dares, Gralings, Menards, Bonestruckles, Pearch, Eels, Gudgeons, Ruff, Chub, Trout, Salmon and Salmon-Smelts: The former, when out of season, come up the river to spawn, and return into the salt water again. There is plenty of Millers Thumb and Pike, which the River was first stocked with by Mr Tempest's Fish Pond of Broughton, breaking into the River".

Keighley (1858) compared the fish populations in 1858 with those in 1733. He pointed out that Grayling, Ruffe, Salmon and Salmon Smelts had all disappeared and that Dace were now seldom caught, but that these fish had been replaced by an abundance of Roach and some Freshwater Crayfish *Austropotamobius pallipes*. He describes the bursting of a gentleman's pond as having caused the introduction of Roach to the Aire around Keighley and claims that Crayfish were introduced into a small brook near Steeton by Mr Garforth of Steeton Hall.

A number of references to fish species in the Aire was made in the *Pollution Commission Report* (1867). In paragraphs 5481 onwards, William Ferrand stated that he regularly fished the river in Bingley from 1817 to 1826 and that the river contained vast quantities of Brown Trout, Grayling, Eel and Freshwater Crayfish. The abundance of trout at Cottingley Bridge (near Bingley) in 1820 was confirmed by the observations of a member of the Busfeild Family¹.

Due to physical modifications made to the river in the mid 19th century, the fish populations may never return as formerly. In a number of areas the river has been straightened or deepened. Above Keighley a number of meanders have been taken out and weirs removed, causing the river to flow straighter and faster. Much of the work was carried out by the Airedale Drainage Company and has resulted in the surface water being lowered by an average of four feet between Stockbridge, Keighley, and Skipton (Pollution Commission, 1867, para. 5515). The alterations probably made the habitat more suitable for salmonids and less suitable for some coarse fish although the effect of this was not noticeable until pollution was alleviated in the late 20th century. As water quality improved

¹ Ferrand and Busfeild family histories and notes on Bingley etc. Page 48. Probably written in the 1870s by a son or daughter of Currer Fothergill Busfeild. (Box 6, Bingley Collection, Bingley Library).

there was a rapid expansion of trout and Grayling numbers and a decline in coarse fish populations.

Species accounts - fish

River Lamprey *Lampetra fluviatilis*. The Goole naturalist Thomas Bunker recorded this migratory fish from the Aire and the Ouse in the 1880s (Bunting *et al.*, 1974). As far as is known, there are no confirmed records of migratory Lampreys in the non-tidal River Aire. Lamprey are found in the other Yorkshire rivers, but as this fish does not take anglers' baits its presence can remain undetected. As weirs are fitted with fish passes and water quality continues to improve, it may well be that River and Sea Lampreys will be found in the Aire.

In February 2008, a local angler fishing in the Aire at Stockbridge, Keighley, caught a pike which then regurgitated a half-digested River Lamprey (pers. comm.). Whether the Lamprey was a bait previously discarded by another angler or was the first evidence of River Lampreys returning to the Aire remains to be seen.

Sea Lamprey *Petromyzon marinus*. This migratory fish occurred in the Aire, presumably in the lower reaches, during the 19th century (Miall, 1890).

Brook Lamprey *Lampetra planeri*. This non-migratory lamprey would appear to have always existed in the Aire catchment. A report in *The Bradford Scientific Journal* (Anon, 1912) stated that several small lampreys (Brook Lampreys from the description) had been reported from the middle reaches of the tributary River Worth. Mr A Rushworth of Keighley remembers seeing them between Ponden Mill and Oakworth in the River Worth in the late 1950s, and EA staff have also caught them in recent years in the Worth below Ponden Reservoir, at Providence Lane in Haworth and at Hermit Hole above Keighley. Large numbers have been found at these sites, the fish being found in the mud beneath the roots of trees. Brook Lampreys were also seen in 2008 downstream of Ingrow in Keighley.

The EA has also caught specimens in the Aire at Hanlith Bridge, Newfield Hall, Gargrave, Carleton Bridge, Cononley, Silsden Bridge and Crossflatts and records them as being in Broughton Beck and the Eller Beck, whilst a further recent record of them in Eshton Beck is provided by British Waterways' staff. An old card in Cliffe Castle Museum, Keighley, mentions a specimen from Cullingworth, presumably from Harden Beck, or a tributary thereof.

Common Sturgeon *Acipenser sturio*. Only thirteen Sturgeon were seen or caught in Britain during the 20th Century and only three of these occasions were in England (Handford, 2004). The only known record of a Sturgeon in the River Aire occurred at Airmin on 24 July 1855, when a 7ft (213.36 cm) specimen was shot in the river and sold in Goole at 6d. per pound (Anon, 1855).

Eel *Anguilla anguilla*. There is no doubt that Eels were historically present in the Aire in large numbers, as would have been the case with most, if not all, of the Yorkshire rivers. Although there are not many detailed references to fish species in the Aire, those that there are prior to the 1850s mention Eels. Eels appear to have ascended the river at least as far as Keighley, and probably beyond. As Eels were in the river long after obstructions had prevented Salmon migration in the 18th century, and continued to be there until gross pollution commenced, it would appear that pollution was the cause of the demise of Eels in the Aire.

The Reverend Miles Gale's list of fish at Keighley around 1700 (Gale, 1815) includes Eel, as does the list in Gent (1733). Keighley (1858) lists the fish which were no longer in the river at Keighley and, as he does not mention Eel, it might be construed that it was still there.

A number of references in the *Pollution Commission Report* (1867) suggests that they had been prevented from ascending the river by the onset of gross pollution. The miller on the south side of the dam at Castleford remarked that the coarse fishing was good up to 1850 and that his brother had caught lots of Eels there with a leap (net) (op.cit., para.15698 on). William Ferrand's statement said that the Aire at Bingley had contained vast quantities of fish, including Eel, during the period he had fished there from 1817 to 1826 (op.cit., para. 5481 on).

John Holmes, the gamekeeper at Esholt Hall from 1839 to 1867, listed Eel as one of the species which had been in the river at Esholt, but "Eels and everything" were killed by pollution in the summer of 1865, right down to the Stansfield Estate at Esholt. As pollution continued to increase, it is probable that Eels did disappear from the Aire during the 1850s and 1860s. There are no further specific records of them being caught by anglers or by the authorities after that time, other than a 37 inch specimen being found in a pipe at Tong Park, Baildon, around 1920 (Jackson, 1939).

Eels were certainly returning to the river by the 1980s. The writer caught one in the late 1980s at Eggborough, below Chapel Haddlesey. The Environment Agency also caught six Eels at Chapel Haddlesey in 2009. Other recent records have included the sighting of a large Eel below Knostrop Lock in summer 2003 and their capture by Bradford fishermen at Beal in summer 2005. It is thought that the report of two Eels being seen in a pipe at Esholt STW in the 1990s can be discounted, as they were probably Grass Snakes *Natrix natrix*. An employee there once described how he'd seen an "eel" which swam across a sewage lagoon at Esholt, and then made its way up the bank. It is likely that he had seen a melanistic Grass Snake.

A definite sighting of an Eel was made in August 2005 when one was found in a traffic cone which was retrieved from the mouth of Silsden Beck (K Sunderland & A Rushworth pers. obs.). Further investigation revealed that the Environment Agency had stocked two tributaries of the Aire, Silsden Beck and Eshton Beck with elvers around 1998 so it was not

clear whether this was an Agency stocked Eel or one which had found its own way up the Aire. However in April 2006 an Eel no more than 8 or 9 inches long was seen swimming in the River Worth in Keighley (K Sunderland & A Rushworth pers. obs.). This was followed within a couple of days by a sighting of another Eel, about a foot long, by the side of Eastburn Beck at Glusburn. This was dropped by a Heron *Ardea cinerea* and returned alive to the beck by a bystander. The size of the River Worth Eel would preclude it from being an elver stocked 8 years previously and would indicate that Eels have returned naturally to the Aire system. The EA caught an Eel at the top of Silsden Beck in 2007. Records in 2011 include a large dead Eel at Rodley NR and angling captures above Crown Point Weir, Leeds, and below Saltaire Weir.

Whether Eels will return to the Aire in anything like their former numbers is open to conjecture. In recent years the European Eel population has plummeted and the number of elvers returning from the Sargasso Sea is said to be as little as 5% of the numbers returning in the early 1980s. The reduction on the east coast of Britain has been more pronounced than that on the west coast.

In order to improve Eel populations the EA stocked the Aire at Rodley with 63,000 elvers in March 2007. Even in the early part of the 20th century William H Whitaker noted that young Eels had been introduced by local angling clubs (ACs), probably in the Keighley area (Whitaker, 1910).

Salmon *Salmo salar*. The *Pollution Commission Report* (1867) includes interviews with various witnesses who could remember the fish populations above Shipley before any pollution and before gross pollution affected the river downstream from Shipley. It is interesting to note that few of the witnesses spoke of the presence of Salmon in the river, although Salmon and smolts were recorded as still being at Keighley in 1733 (Gent, 1733). This suggests that Salmon disappeared from the reaches above Leeds during the latter half of the 18th century and that the major cause was impassable barriers and not the ever-increasing pollution in the 19th century. As late as 1867, Mr Bartholomew stated (Anon, 1867, Para. 7311) that Salmon frequently used to come over the dam at Haddlesey (the bottom weir on the Aire) and he believed that they had done so up until the previous year.

The corn miller on the south bank of the river at Castleford said that up to 1850 he had generally seen Salmon leaping at the dam there in October and November but had never seen them since (Para. 15698 on). A witness from Leeds (Pollution Commission, 1867, Para. 7736 on) stated that around 1800 the river and becks were very clear and offered excellent fishing, even in the centre of Leeds. In the town there were only scale fish but two or three miles downstream there were occasional Brown Trout and four miles downstream, opposite Temple Newsam, the river abounded with Trout and Grayling. This witness made no mention of the presence of Salmon at that time, only that he had been told that someone had speared one of more than 20lbs around 1756.

John Holmes, the gamekeeper at Esholt Hall from 1839 to 1867, declared the river above Leeds at Esholt Hall (below Shipley) as having been full of fish, but that he had never heard of Salmon being there, nor of the Salmon Fishery Commissioners having been there (Anon, 1867, Para.9505 on). William Ferrand regularly fished the river from 1817 to 1826 at Bingley and, although noting that the river was beautiful and clear in those years and contained vast quantities of trout, Grayling and Eel, makes no mention of Salmon (Pollution Commission, 1867, para. 5481 on).

From the foregoing, it would appear that although some Salmon were able to reach Castleford up to about 1850, they were not progressing much further up the river. However, the 44th Report of the Yorkshire Rivers Board (Anon, undated) states that Salmon were seen at Allerton Bywater, just upstream of Castleford, as late as 1850. Since the Pollution Commission was asking for evidence of the previous state of the river, it is highly likely that witnesses would have mentioned the presence of Salmon if the fish had been present in the river in their lifetime. Hence the conclusion must be drawn that it was not pollution which initially led to the demise of the Salmon but the erection of the barriers to upstream movement. Mr W N Wilkinson, agent to the Aire and Calder Navigation, stated that stopping the discharge of sewage to the river "would be the most desirable thing possible. I do not say that it would clear the river altogether and make our Salmon come back, but it would be a very great thing" (Pollution Commission, 1867, para 16179).

Proof of the return of Salmon took place in November 2002 when Colin Haggerty caught a 16lb specimen at Chapel Haddlesey near Eggborough. The fish was photographed and returned to the water unharmed. A previous unverified sighting in the tidal reaches was recorded in the *36th Annual Report* of the West Riding of Yorkshire Rivers Board (Anon, c1930). This Salmon, about two and a half feet in length and not in healthy condition, had been observed for a considerable time near Carlton Bridge, near Snaith.

The first confirmed modern Salmon sightings in the non-tidal Aire were by EA staff inspecting film of fish attempting to ascend Knottingley Weir, taken by K Sunderland and A Tremethick in October 2007. The following month, the EA caught eight Salmon and two Sea Trout *Salmo trutta* below Chapel Haddlesey Weir, and then a further two Salmon, a very large Brown Trout and a Flounder *Platichthys flesus* a few days later. From this evidence the EA's Fisheries Team Leader for the area thought that there were probably hundreds of Salmon in the lower Aire in 2007.

The sightings in 2007 led to high expectations in 2008 but, although leaping fish were seen at Knottingley Weir, they were not in numbers approaching those of the previous year. However, on 27 October 2009 expectations were met when, in the space of an hour, the author witnessed 29 fish leaping at the weir. It was not possible to verify that all were Salmon, but some were definitely identified as such. Further sightings at Knottingley Weir were made in 2010, 2011 and 2012.

In the years prior to 2007 there had been reports of Salmon having been seen in Leeds at Thwaite Mills and at Knostrop Lock Weir. Due to the difficulty in differentiating between Salmon and trout, it had not been possible to positively identify the fish, but it is highly likely that some of them were Salmon. In addition a Leeds angler, Steve Harness, caught a 5lb Salmon near the Armouries Museum in Leeds (Anon, 2006). As yet, there are no confirmed reports of Salmon above Leeds and no juvenile Salmon have been found in the Aire or its tributaries.

Brown Trout *Salmo trutta*. This is the dominant fish in the higher reaches of the river from Malham to Gargrave where there are also healthy populations of Minnow and Bullhead. As water quality below Skipton has improved, it is perhaps surprising that trout numbers have not increased as would be expected. A number of the becks have weirs at, or near, their confluence with the main river and this may restrict the spawning grounds for trout. Tributaries which are currently cut off, or partially cut off, from the main river in this way include Broughton Beck, Eller Beck, Cononley Beck and Eshton Beck.

Prior to the mid 19th century, Trout were found all the way down the river to Leeds. William Ferrand observed that the river at Bingley contained vast quantities of trout in the 1820s, and a member of the Busfeild family remarked on the great quantities of trout there at that time. In 1800 the river at Temple Newsam abounded with trout but the trout was said to be an occasional fish two or three miles upstream of Leeds.

After the 1850s, Trout was still the main fish above Skipton but numbers declined from Skipton to Shipley. Trout was still there but coarse fish became the dominant species and the number of Trout was very restricted downstream of the confluence with the River Worth at Keighley. There are conflicting reports of the Trout population at Bingley. Mr Laycock in his evidence to the Pollution Commission in 1866 said that he'd been told that the river there was almost lifting with Trout, whereas a member of the Ferrand family said in the 1870s that pollution had increased over the previous twenty years and the joy of fishing ceased. By the 1890s, when Gray was commenting on the fish populations, there was little mention of Trout below Keighley. Above Keighley, huge stocking took place, Gray remarking on 8,000 Loch Leven trout being introduced in 1891 and 18,000 in 1893, and that this stocking was taking place for a number of years. It is thought that the stocking took place above Carleton, a mainly trout fishery, rather than below where coarse fish predominated.

Trout are now very common in the reaches from the Skipton area down to Kirkstall and even just below Leeds on suitable stretches, tending to dominate where the river is fast-moving and relatively pollution-free. They are increasingly seen at Saltaire, Esholt and Apperley Bridge. The fish, which are nearly all wild trout as opposed to stocked fish, grow to a very large size (up to 8 lb).

Environment Agency personnel think that the trout in Leeds have travelled downstream, presumably in search of feeding opportunities, and become trapped below the weirs. Every autumn, trout can be seen leaping at the weirs at Crown Point, Knostrop Lock, Newlay Bridge, Rodley, Saltaire and Hirst Mill. It is thought that they get over the lower weirs such as Shipley and Bingley.

Sea Trout *Salmo trutta*. The lack of references to Sea Trout in the Aire in historical documents is something of a mystery. It may be that there was no distinction made between Brown Trout and Sea Trout. On the other hand, it may be that the references made to Smelt may be to Sea Trout. Smelt was an old Yorkshire word for a smolt (juvenile Salmon or trout) but it is possible that it also encompassed adult Sea Trout. It is unlikely that Sea Trout was absent from the Aire in the days when Salmon regularly ran the river.

The first record of an Aire Sea Trout in modern times occurred when the Environment Agency caught two in the tidal stretch below Chapel Haddlesey Weir in November 2007. There have also been unconfirmed reports of Sea Trout in the Calder.

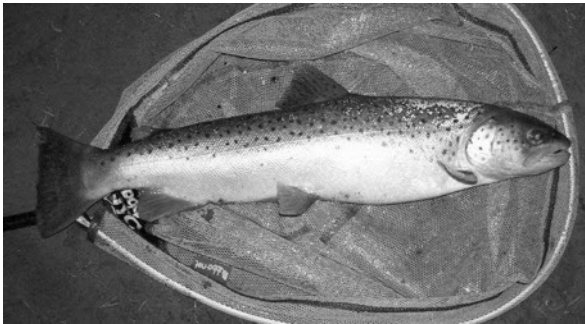


Figure 1. The first sea trout caught in the non-tidal section of the River Aire.

K.Sunderland

The first record of a Sea Trout in the non-tidal Aire, documented by the photograph in Fig.1, took place on 24 January 2010 when Bingley angler Carl Chadwick caught a 23inch specimen in Roberts Park, Saltaire.

Rainbow Trout *Oncorhynchus mykiss*. This trout has been in the River Aire for many years but never in significant numbers. Whitaker (1910) stated that Rainbow Trout were occasionally captured in the Aire, and this is still the case. Whitaker described them as being introduced by angling clubs, whereas now their presence is usually attributed to escapes from fish farms and stocked lakes.

Smelt *Osmerus eperlanus*. Clarke and Roebuck (1881) mentioned that this fish was common in the Humber Estuary and abounded in the Ouse up to Naburn Lock. Given recent improvements in water quality, it is to be expected that Smelt will return to the Aire up to the tidal limit at Chapel Haddlesey. Smelt is a separate species and should not be confused with Salmon smolts which used to be referred to locally as smelts.

As yet, there are no known records of Smelt in the River Aire. However, a young one was caught in summer 2009 in the EA tidal ponds at Airmyn. Hence there may well be a spawning population of this fish in the lower Aire.

Grayling *Thymallus thymallus*. Grayling populations have increased on a national basis in recent years as water quality has improved. The Aire has been no exception to this trend and Grayling have been found to be spreading down the river. As a fish that requires a high water quality, it suffered badly from pollution and was eventually only found in the Aire above Skipton. Gray (1891) noted that the stretch from Gargrave to Carleton, near Skipton, held a considerable number of Grayling and in 1894 the stretch from Eastburn Beck to Keighley was described as including the occasional Grayling.

In recent years the Grayling has been expanding its range downstream from the Skipton area and, since the year 2000, has been caught regularly by anglers in the Kildwick to Steeton stretch of the river. In the winter of 2009 to 2010, the Grayling population in this area had expanded to such an extent that it and Brown Trout were making up 100% of the catches in Keighley Angling Club matches.

Grayling have continued to spread down the river and since 2004 have been caught on a regular basis in the River Worth between its confluence with the Aire and the bottom weir near Aireworth Road. The Environment Agency caught one below Crossflatts Weir above Bingley in 2004 and the fish is now thriving much further downstream. Some of the spread is undoubtedly due to EA stocking in August 2006, when 1000 fish were introduced below Hirst Mill Weir, Saltaire, and a further 1000 in Myrtle Park, Bingley. However, since some of the angler-caught fish are considerably larger than these introductions it may be that much of the downstream expansion has been of natural fish populations. Increasing numbers of Grayling are now being caught by anglers at Apperley Bridge and occasional ones as far downstream as the centre of Leeds.

Oumer (a former name for Grayling from "ombre", the French word for a shadow) were included in the Reverend Miles Gale's list of fish at Keighley around 1700 (op.cit.), but by 1858 Keighley stated that there were now "neither oumers nor gralings" there.

Historically Grayling were present much further downstream. William Ferrand (op.cit.) included them as being one of the species which were at Bingley in vast quantities during the period from 1817 to 1826, but it is noticeable that John Holmes did not mention them as being at Esholt when he was gamekeeper there from 1839 on. This may have been due to the deteriorating water quality below Shipley. Another witness quoted in the *Pollution Commission Report* (1867, para. 7736) stated that the Aire about four miles downstream of Leeds opposite Temple Newsam abounded with trout and Grayling around 1800.

Pike *Esox lucius*. Gent's 1773 list of fish in the Aire at Keighley included Pike, although he said that it had first arrived in the river when Mr Tempest's fish pond at Broughton had broken into the river. Gale's list of 1690 did not mention Pike. A report in *The Naturalist* (Anon, 1937) mentioned that a large Pike weighing 11.75lbs had been caught in the Aire near Skipton on 20 October 1936.

The Environment Agency's fish surveys for 2004 and 2005 recorded good numbers of Pike in the upper section of the river from Carleton Bridge down to Crossflatts, and at the lower end of the river from Castleford down to Chapel Haddlesey. They did not record any in the long stretch in between, although Pike has been seen from Bingley down to Apperley Bridge on a regular basis. Large numbers of Pike are also known to be present in the tidal Aire below Chapel Haddlesey Weir.

Roach *Rutilus rutilus*. This fish continues to be found below Bingley but mainly in the slower stretches of river, particularly above weirs. Trout, Chub and latterly Grayling tend to be more common in the faster stretches. There are good populations of Roach above Hirst Mill Weir at Saltaire, at Apperley Bridge and at Kirkstall Abbey. The numbers greatly increase from central Leeds downstream, particularly at Castleford, Knottingley and Beal. Recent fishing matches at Beal have produced some outstanding catches of Roach.

One of the main questions on the Aire since the 1980s has been the causes of the disappearance of Roach from Skipton down to Bingley. Older coarse anglers look back to the 1950s and 1960s when there were abundant populations of Roach

The Roach were not present in the Keighley area in 1690 when the Reverend Miles Gale produced his list of fish. Nor were they there when his list was amended in 1733 by Thomas Gent. This is unlikely to be an oversight as Gent corrected the previous list by including the additional presence of Bullhead, Minnow and Three-spined Stickleback, but still did not mention Roach.

The situation had changed dramatically by the mid 19th century and there was said to be an abundance of Roach in the Keighley area. Keighley (1858) suggested that this fish had got into the river via the canal when a gentleman's pond had burst. Since Roach benefits from mild pollution it is highly likely that it did well up to the late 20th century. As Grayling had disappeared at the same time, this would indicate water quality problems. With the alleviation of these in the late 20th century, the Roach has disappeared and the Grayling begun to return.

In 1891, Johnnie Gray mentions catches of more than 20lbs of Roach between Carleton and Kildwick (Bunting *et al.*, 1974). Three anglers, on two successive Saturday half days, killed over a hundredweight (112lbs) of nothing but Roach at Bradley near Skipton. By the 1850s the river below Shipley was suffering from gross pollution and after that time, fishing catches between Shipley and Skipton are invariably noted as including Roach. The number of Roach above Keighley is greatly diminished in recent years, despite the introduction of almost 30,000 into the Keighley section of the river from 1975 to 1980. Other than a single fish at Cononley in 2005 they have not been found in recent EA surveys of that part of the river.

Surprisingly, there are records of Roach being present in the grossly polluted stretch of river below Esholt during the first half of the 20th century. The *Annual Report* of the Yorkshire Fishery District (Anon, 1938a) records that anglers were catching good quality Roach below Castleford Weir, while a later *Report* (Anon, 1940) mentions that fish (probably Roach) were being netted below Armley Weir. The West Riding of Yorkshire Rivers Board *43rd Report* (Anon, 1938b) mentions that coarse fish had been seen in the Aire near Knottingley in August 1937, the third year in a row that this had happened. On all occasions the sightings had taken place when the river was low and clear after a fairly long spell of dry weather.

Rudd *Scardinius erythrophthalmus*. One was caught by the Environment Agency in the tidal Aire below Chapel Haddlesey Weir in 2009. No other catches have been brought to the author's attention.

Dace *Leuciscus leuciscus*. Dace is found in the Aire at various locations from Carleton Bridge downstream to Castleford. They are numerous from Dowley Gap to Saltaire, at Apperley Bridge, Kirkstall, central Leeds, and Thwaite Mills.

Chub *Leuciscus cephalus*. Very much a common fish of the River Aire and in evidence all the way from Skipton to below Castleford. Chub is well suited to the river and no doubt takes advantage of the food source provided by shoals of Minnows in the middle and higher reaches. Chub was omitted from the Reverend Miles Gale's list of fish at Keighley in 1690 but was included in Thomas Gent's listing in 1733, so it is likely that Gales's omission was due to an oversight. John Holmes, gamekeeper at Esholt, mentions it there in the 1840s before the era of gross pollution. Further evidence of its abundance at Esholt at that time comes from Henry Whitaker's diary of 4 June 1842 (Anon, 1885), where he recorded that despite a thin film of gas-tar on the surface of the river, great shoals of Chub were still to be seen. Although Chub, as all other fish, disappeared from the Esholt area after pollution took its toll from 1850 on, it continued to thrive from Shipley up to Skipton and was mentioned in most lists of fish for that area in the late 19th century onwards.

Although its numbers seem much diminished in recent years, occasional very large Chub are still present in the river between Cononley and Steeton.

Minnow *Phoxinus phoxinus*. This is the most numerous fish of the River Aire, particularly above Shipley. Although still present in their millions, numbers seem to have declined somewhat. It is still regarded by anglers as a pest anywhere from Gargrave to Leeds. When the Aire in the region of Cononley still suffered from mild pollution in the 1950s and 1960s, the Minnows were a sight to behold. Vast shoals swimming alongside the bank were highly visible. In the late spring and early summer, minnows still congregate in huge numbers at certain spots including Saltaire, the shallows below the Dowley Gap Aqueduct (below Bingley) and in the mouth of Eastburn Beck. Minnows were also to be seen in the bottom half mile or so of the Bradford Beck in the years following 2000 but they then disappeared

as the trout population increased. The Bradford Beck suffered a very serious pollution incident in early May 2009 which wiped out all the fish below Bradford. The EA retrieved 1300 dead trout from the Beck following this incident. Within three months, large numbers of Minnows had reappeared in the lower Beck around Shipley Station.

Another notable occurrence took place at Saltaire Weir during exceptionally warm weather around the end of June 2009. Minnows were seen to be ascending the weir over a number of days and between 280 and 350 per hour were counted successfully completing the ascent. Huge numbers of Minnows assembled below the weir on the left bank side and the more upstream fish leaped on to the weir before heading to the right to form a foot-wide line of fish. They then swam up the weir, backs out of the water, making numerous stops to rest. The event continued for hour after hour for almost a week. Similar displays were seen over the following two years during periods of hot weather. In 2011, large numbers of Minnows were seen ascending the weir as late as 30th September (pers. obs). Minnows have also been seen making unsuccessful attempts to leap the weirs at Shipley, Bingley and Crossflatts, as well as on Morton Beck.

Environment Agency records for 2005 and 2006 show that Minnow was present at all locations surveyed between Carleton Bridge down to Thwaite Mills.

Tench *Tinca tinca*. This is not a fish which is usually associated with the River Aire but the EA has caught three at Castleford. Angling clubs have introduced Tench to the river from time to time, but without any appreciable success.

Gudgeon *Gobio gobio*. Gudgeon was included in the lists of fish at Keighley in both 1690 and 1733. It is now present all along the river downstream of Skipton. It is definitely one of the species which has returned naturally to Apperley Bridge and good-sized specimens are caught there.

Shilcock (1988) described Gudgeon as being present below Skipton, at Crossflatts, Knostrop and very common below Skelton Grange Power Station Weir. The fish surveys for 2004 and 2005 showed Castleford as having the largest numbers.

Barbel *Barbus barbus*. Barbel has been a longstanding source of controversy amongst anglers on the River Aire. The vast majority of anglers wanted Barbel to be (re)introduced whilst a very small minority resisted this measure. The fish is found in all the other West and North Yorkshire rivers but there is no record of it being historically present in the River Aire.

The Barbel is a fish which is highly prized by coarse fish anglers due to the size it can reach and its fighting qualities. A move was made to introduce it to the Aire in the vicinity of Bingley in 1980 but permission to do so was refused by Yorkshire Water Authority's Fisheries Officer. This was later amended to permission to introduce 300 male fish below

Bingley. The permit was not acted upon due to the problems of acquiring fish of one sex. A further attempt was made to introduce Barbel in 1999 but this time the Environment Agency decided that an introduction could not be permitted as Barbel was not native to the River Aire.

It would appear that some unofficial stocking of Barbel had taken place over the years as it started to be caught in small numbers. In March 1997 an angler fishing at Saltaire hooked and lost an estimated 6lb Barbel. This was only the third to be seen in the Aire for 40 years (Anon, 1997). Increasing numbers of Barbel have been caught at Saltaire since that time. The Environment Agency caught a couple in 2004 below Crossflatts Weir and also found them at Saltaire. There have also been reports of them being caught below Armley Mills Weir in Leeds. The probability is that these fish had been introduced illegally and that improved water quality meant that they were able to breed successfully. Barbel have also been reported by anglers from below Knottingley.

The first officially sanctioned stocking of Barbel took place on 26 October 2007 when Saltaire AC, Bingley AC and Keighley AC put a total of 700 fish into their local waters. In the following November the Barbel Society provided Keighley AC with a further 180 for stocking below Kildwick. Subsequent to the initial stocking in October 2007, the EA introduced almost 5,000 smaller Barbel at Apperley Bridge, Rodley, Kirkstall, Armley and Thwaite Mills, and further boosted the stocks upstream of Saltaire in 2009 with 1,500 fish. Annual EA stocking continues at c.3,000 per year at various locations between Kildwick Bridge and Thwaite Mills. When the stocking scheme is expected to end in 2014 a total of over 21,000 Barbel will have been officially stocked into the river between Thwaite Mills and Kildwick Bridge.

Bleak *Alburnus alburnus*. There is no mention of Bleak in old River Aire records. However, it now appears to be entering the river system from the River Ouse, and angler C Haggerty mentioned large shoals of Bleak in the tidal section below Chapel Haddlesey in 2004 and the Environment Agency captured one there in the same year. In 2005 there were reports of them further upstream, an angler catching one at Beal and the Environment Agency one at Castleford. This was followed by a further nine electro-fished at Castleford in 2009.

Common Bream *Abramis brama*. There are no historic records of Bream in the River Aire. However, there is no doubt that it is present now, but on a somewhat patchy basis. Shoals are said to be in the river above Stockbridge, Keighley, and have been seen opposite Marston's Nature Reserve below Shipley and between Crown Point and Knostrop Lock in Leeds. All these stretches are slow-flowing and it is probable that there are large Bream in such areas all along the lower stretches. The EA caught two in the tidal stretch below Chapel Haddlesey in 2005.

Silver Bream *Abramis bjoerkna*. Records of Silver Bream are very limited as most anglers do not distinguish between this fish and small Common Bream. However, EA has caught it in the tidal Aire at Chapel Haddlesey on a couple of occasions over the last few years.

Common Carp *Cyprinus carpio*. There appear to be a few small populations of Carp in the River Aire. The writer has seen one at Cottingley Bridge and another above the Dark Arches in Leeds, and has had reports of Carp around Crown Point and in the Knottingley area. There is no mention of Carp in the Aire in historical records.

Perch *Perca fluviatilis*. Other than in the parts which suffered from gross pollution at the time, Perch would appear to have been present all along the river downstream of Skipton, albeit in small numbers. The early 18th century records show them at Keighley. A report in the *Bradford Telegraph* around 1885 recorded that Mr Sutcliffe Rhodes of the Bradford Eagle AC, had caught three Perch. Writing in the early years of the 20th century, Whitaker (1910) regretted that the Perch was gradually disappearing from the Aire.

More recently, Perch has been seen at Dowley Gap and is regularly caught in large numbers in the Leeds area. The Environment Agency's fish surveys for 2004 and 2005 did not reveal any Perch above Leeds. However, from Leeds downstream their numbers continued to increase and large numbers were recorded at Castleford and Chapel Haddlesey.

Ruffe *Gymnocephalus cernuus*. Gent (1733) mentions Ruffe in his list of fish in the Aire near Keighley in 1690 but Keighley (1858) said it was no longer in the Aire. However, Whitaker (1910) stated that the Ruffe was the commonest quarry of the worm fisher in the deeper parts of the Aire. Clarke and Roebuck (1881) stated that Ruffe was previously found in the Lower Aire but had been exterminated by pollution. Ruffe is still present in the river around Keighley but is only rarely caught.

Stone Loach *Barbatula barbatula*. Found in habitats similar to those frequented by Minnow. The 2007 survey by the EA found Stone Loach at all locations surveyed between Carleton Bridge and Thwaite Mills.

Bullhead *Cottus gobio*. Found at various locations all the way down the river from Hanlith Hall near Malham to Thwaite Mills. There are also large numbers in the River Worth and its tributaries. The likelihood is that it is also present in the becks which flow into the Aire.

Three-spined Stickleback *Gasterosteus aculeatus*. This fish would appear to have always been a resident of the Aire, being mentioned in almost all historic records. Even in the days of gross pollution downstream of Shipley, the river was described as containing Sticklebacks.

Flounder *Platichthys flesus*. Flounder is found in the tidal Aire. C Haggerty caught one below Chapel Haddlesey Weir in May 2004 and the EA caught another there in November

2007. This fish would probably have been found as far upstream as Knottingley prior to the tidal limit being moved downstream to Chapel Haddlesey in the 18th century.

Burbot *Lota lota*. Burbot is believed to be extinct in Britain, the last sighting having been at Cambridge in 1969. There are no known records of it in the Aire but it was certainly present in the sluggish lower reaches of other Yorkshire rivers in the 19th and 20th centuries. Clarke and Roebuck (1881) made mention of Burbot being relatively common in the Hull, Lower Derwent, Whiske, Foss and the Ouse below Naburn.

Crayfish

American (Signal) Crayfish *Pacifastacus leniusculus*. Following the finding of the claw of a Signal Crayfish by EA employees at Silsden Bridge in 2004, plus reports of its presence by anglers, EA carried out trapping there in June 2005. Three traps were set on a Friday night and, when they were opened the next day, were found to contain between 15 and 20 specimens. This was the first official confirmation that this species was living in the River Aire (Anon, 2005). EA carried out further trapping elsewhere on the river but they did not find further crayfish. More recently, Signal Crayfish has been found in the Eller Beck near Skipton Castle and there have been possible sightings in the River Worth, Eastburn Beck and at Bingley.

One of the theories as to how the Signal Crayfish arrived in the Aire was that anglers might have been using them as bait but it is more likely that they were transferred from the River Wharfe by a member of the public. Signal Crayfish have been abundant in the upper Wharfe for a number of years.

Signal Crayfish, which is said to compete for habitat with the native White-clawed Crayfish *Austropotamobius pallipes*, carries a plague to which the latter has no resistance. It also eats the eggs of fish. It can colonise a river downstream at about a kilometre a year. Reports from Silsden suggest that there are hundreds of Signal Crayfish there.

White-clawed Crayfish *Austropotamobius pallipes*. This species still inhabits the upper Aire above Gargrave and also Eshton Beck, Harden Beck, Wyke Beck and Meanwood Beck. A report in *The Naturalist* (Anon, 1937) stated that Crayfish had been seen in the upper reaches of the Aire and also in the Otterburn Beck. It would appear that it disappeared from other areas of the catchment due to pollution.

Keighley (1858) stated that some Crayfish were present in the Keighley area and had arrived there after having been introduced into a small brook near Steeton. Crayfish is included in the list of species which William Ferrand described in the Bingley area of the river when he knew it from 1817 to 1826 (*Pollution Commission Report*, 1867). "There are, or were until a recent period, some of the best specimens of the common crayfish in England in the Aire, in the immediate vicinity of Saltaire and Bingley." (Anon, 1884).

Future Progress

Most fish species in the River Aire are expected to continue to benefit from increasing water quality, removal of barriers to movement and other habitat improvements. The future looks particularly bright for migratory fish such as Salmon, Sea Trout, Eel, Sea and River Lamprey and non-migratory fish such as Grayling and Barbel. Other coarse fish should also do well in the slower reaches of the river. Benefits to fish stocks and associated wildlife should follow from the implementation of the Water Framework Directive. Anglers and conservationists in the Aire Valley should be confident that the improvement to the River Aire is set to continue.

The author

The author is a founder member of the Aire Rivers Trust and a member of the Aire Action Leeds Planning and Policy Committee, where he has pursued the improvement of fish passage on the Aire for a number of years.

References

- Anon (1855) *Goole & Marshland Gazette* 24th July.
- Anon (1884a) *Angling in Yorkshire*, 5th July
- Anon (1884b) *Angling in Yorkshire*, 19th July.
- Anon (1885) *Angling in Yorkshire*, 21st February.
- Anon (1912) *The Bradford Scientific Journal*, 3, 1910-1912.
- Anon (1937) The Yorkshire Naturalists' Union Seventy-fifth Annual Report, for 1936. *The Naturalist*, p17.
- Anon (1938a) *72nd annual report*. Yorkshire Fishery District.
- Anon (1938b) *43rd report*. West Riding of Yorkshire Rivers Board.
- Anon (1940) *74th annual report*. Yorkshire Fishery District.
- Anon (1997) Regular fisherman's irregular story. *Telegraph & Argus*, 12th March.
- Anon (2005) Killer crayfish are found. *Telegraph & Argus*, 21st June.
- Anon (2006) *Coarse Fishing* March 2006
- Anon (2007a) *Pontefract and Castleford Express*, 25th January.
- Anon (2007b) *Telegraph and Argus*, 27th July.
- Anon (2008) *Goole and Thorne Courier*, 11th March.
- Anon (2009) *Telegraph and Argus*, 7th August.
- Anon (c1930) *36th annual report*. West Riding of Yorkshire Rivers Board.
- Anon (undated) *44th and final report* p7. West Riding of Yorkshire Rivers Board.
- Bunting, W., Hanson, M., Howes C. A., and Kitchen, A., (1974) The History of fish in the Doncaster District. *The Naturalist* 98.
- Clarke W.E. and Roebuck, W.D. (1881) *A Handbook of the Vertebrate Fauna of Yorkshire*, pp 103, 104, 119.
- Firth C.J. (1997) *Sturgeon in the River Don. Domesday to the dawn of the new millennium*, Appendix 7. Environment Agency.
- Gale, Rvd M. (1815) *The Gentleman's Magazine*.
- Gent, T. (1733) *History of the Loyal Town of Ripon*, pp34-38.
- Gray, J. (1891) *Through Airedale from Goole to Malham*.
- Handford, R. (2004) *Freshwater Fishes in Britain* p 50.

- Howes, C.A. (2008) The Harbour Porpoise in inland water bodies in Yorkshire, *The Naturalist*, pp116-117.
- Jackson, S. (1939) *The Naturalist*, p210.
- Keighley, W. (1858) *Keighley Past and Present*, pp 51-53.
- Miall, L. C. (1890) *Natural History of the Aire. Handbook for Leeds and Airedale* pp22-24. British Association for the Advancement of Science, Leeds.
- Ogden, J. (1972) *Yorkshire's River of Industry*, p51.
- Pollution Commission (1867) The best means of preventing the pollution of rivers (Aire and Calder). *Pollution Commission 3rd Report* 1 and 2.
- Shilcock, D.J. (1974) *Symposium-Rivers Aire and Calder*, Yorkshire Water Authority, p39.
- Shillcock, D.J. (1988) *Water Management in the Aire Catchment*, p43. Yorkshire Water.
- Whitaker, W.H. (1910) The Fishes of Upper Airedale, *Bradford Scientific Journal* 2:13-19.
-

Yorkshire Ichneumons: Part 1

W.A.Ely 9 Clifton Lane, Rotherham, South Yorkshire S65 2AA

Introduction

The study of Yorkshire's ichneumons in recent years has resulted in many additions to the county list and many more for each vice-county. These are included in the list maintained on the YNU website but most of the additions have not been formally reported in *The Naturalist*. Several have been published in the pages of the *Sorby Record* or other publications. The fact that such references are quoted here as a record of occurrence in a particular vice-county does not necessarily mean that they refer to the earliest record, just the earliest publication. The specimens on which many of the earlier references are based have not been found and checked, so these references are included as unconfirmed in order to acknowledge the contributions of previous workers. If there is a later confirmed specimen then that is reported here as the first accepted vice-county record. Some of the unconfirmed records are due to taxonomic changes, some quite recently. The specimens on which these published reports are based may still exist and they may be located and verified in the future, as some have already been traced and confirmed. In some cases it will be apparent that the earliest record is not shown as being 'new to Yorkshire'. There is a difference between the first and the earliest Yorkshire records and it is quite common for a species to be published as 'new to Yorkshire/new to VC61, etc.' only for one or more earlier specimens to be discovered subsequently. I have identified or checked all the new records reported here unless otherwise specified.

Subfamily Pimplinae, Tribe Ephialtini

The spider parasitoids from *Dreisbachia* onwards have long been considered as a separate tribe, the Polyspinctini, which forms a natural (i.e. monophyletic) group. However, the rest of the Ephialtini, which also contains spider parasitoids, is paraphyletic and not a natural

group. It is generally considered better to reunite these tribes until a more satisfactory subdivision can be devised.

Some reviews of regional and local fauna have included ephialtine ichneumons. Bairstow *et al.* (1882) provides our earliest list and Roebuck (1907) includes a Yorkshire list in the 'Victorian County History' series, largely based on earlier publications plus specimens sent to Claude Morley for identification. Walsh & Rimington (1956) report on them in a comprehensive review from the Scarborough area. I have not located many of the specimens on which the records in these three publications are based and they are considered to be unconfirmed. Ely (1992; 2000) reviews the records from South Yorkshire (including the parts of VC56 and VC57 transferred to the modern county) at the end of the 20th century and Coldwell (1999) includes them in a list of the insects of Barnsley. Mayhew *et al.* (2009) report on the results of a malaise-trapping project around York at the start of the 21st century. There are many reports from field meetings around the county and even site reviews (Skidmore *et al.*, 1987; Ely, 1987b; Skidmore, 2006).

Key: = new county record * = new vice-county record

Ephialtes manifestator (Linnaeus, 1758)

Reported from VC61 by Shaw (2006 p219) and Mayhew *et al.* (2009 p14) and from VC63 by Skidmore (2006 p148).

Dolichomitius agnoscendus (Roman, 1939)

Reported from VC61 by Shaw (2006 p219) and Mayhew *et al.* (2009 p14) and from VC63 by Ely (2000 p44).

Dolichomitius mesocentrus (Gravenhorst, 1829)

Reported from VC61 by Hincks (1953 p135).

*VC63: Hatfield Moor 13.5.1992 P.Skidmore.

Dolichomitius populneus (Ratzeburg, 1848)

VC63: Wadworth Wood ex *Saperda populnea* em. 5.6.1985 P.Skidmore.

Dolichomitius pterelas (Say, 1829)

Reported from VC64 by Shaw (2006 p219) and Mayhew *et al.* (2009 p14).

Dolichomitius terebrans (Ratzeburg, 1844)

Reported from VC64 by Mayhew *et al.* (2009 p14).

Dolichomitius tuberculatus (Geoffroy in Fourcroy, 1785)

Unconfirmed report from VC64 by Fordham (1924 p309); reported from VC61 by Hincks (1955) and Mayhew *et al.* (2009 p14) and from VC63 by Ely (1992 p8) and Coldwell (1999 p61).

*VC62: Ellerburn 29.9.1979 J.H.Flint.

*VC64: Bishop Wood 31.8.1988 J.H. + H.E.Flint.

Townesia tenuiventris (Holmgren, 1860)

Reported from VC61 by Mayhew *et al.* (2009 p16).

*VC63: Crimsworth Dene 27.7.2011 W.A.Ely.

*VC64: Leeds 6.8.1950 unknown.

Liotryphon caudatus (Ratzeburg, 1848)

Reported from VC63 by Ely (2000 p44).

Liotryphon crassisetus (Thomson, 1877)

Unconfirmed reports from VC61 and VC64 by Mayhew *et al.* (2009 p14); reported from VC63 by Ely (1992 p8) and from VC64 by Godfrey & Whitehead (2000) (det. M.R.Shaw).

*VC61: Buttercrambe Woods 10.6.1944 J.H.Elliott.

Liotryphon punctulatus (Ratzeburg, 1848)

VC63: Drop Clough 6.1986 D.Maude.

Exeristes ruficollis (Gravenhorst, 1829)

Reported from VC61 by Mayhew *et al.* (2009 p14).

Fredegunda diluta (Ratzeburg, 1852)

Reported from VC61 by Hincks (1951 p28, 1953 p136) and Fitton *et al.* (1988 p45) and from VC63 by Skidmore *et al.* (1987 p127), Ely (1992 p8) and Skidmore (2006 p148).

Endromopoda arundinator (Fabricius, 1804)

There is an unconfirmed report from VC63 by Carr (1914 p94).

Endromopoda detrita (Holmgren, 1860)

Fitton *et al.* (loc. cit.) split the previous concept of this species into two, including the following species. The report from VC63 by Carr (1914 p94) is unconfirmed; reported from VC61 by Morley (1908 p89), Hincks (1953 p136) and Mayhew *et al.* (2009 p14), from VC63 by Ely (1992 p8; 2000 p44) and Skidmore (2006 p148) and from VC64 by Ely (1987b p23) and Mayhew *et al.* (2009 p14).

*VC62: Mulgrave Woods 3.8.1936 H.Britten.

*VC65: Feldom 18.8.1990 W.A.Ely.

Endromopoda nigracoxis (Ulbricht, 1910)

Reported from VC61 by Hincks (1953 p136) [as *E. detrita*] and Mayhew *et al.* (2009 p14) and from VC63 by Hammett & Hammett (1985 p10) [as *E. detrita*] and Ely (1992 p8).

*VC62: Malton Road, York 7.7.1945 J.H.Elliott.

*VC64: Camblesforth golf course 27.7.1987 W.A.Ely.

*VC65: Birk Gill 7.7.1984 W.A.Ely.

Endromopoda nitida (Brauns, 1898)

VC61: Fulford Ings 1.8.2011 R.Crossley.

Endromopoda phragmitidis (Perkins, 1957)

Reported from VC63 by Ely (2000 p44) and Skidmore (2006 p148) and from VC64 by Ely (1987b p24).

*VC61: Spurn Point NR 4.7.2002 P.Kendall.

Scambus brevicornis (Gravenhorst, 1829)

Unconfirmed reports from VC61 by Morley (1908 p75) and from VC64 by Bairstow *et al.* (1882 p108); reported from VC61 by Fordham (1926 p117) and Mayhew *et al.* (2009 p15), from VC63 by Hincks & Dibb (1940 p175), Ely (1992 p9) and Coldwell (1999 p61) and from VC64 by Ely (1987b p24).

*VC62: Malton Road, York 3.6.1944 J.H.Elliott.

Scambus buolianae (Hartig, 1838)

Reported from VC61 by Hincks (1951) and from VC63 by Ely (1992 p9; 2000c p45), Coldwell (1999 p61) and Bateson (2002 p43).

*VC62: Keld Head 15.5.1985 G.King.

*VC64: Shipley Glen 2.8.1941 J.Wood.

Scambus calobatus (Gravenhorst, 1829)

Unconfirmed reports from VC64 by Wilson (1881 p153), Bairstow *et al.* (1882 p108), Roebuck (1907 p215) and Morley (1908 p84); reported from VC61 by Hincks (1953 p135) and from VC63 by Ely (1992 p9; 2000 p45).

Scambus elegans (Woldstedt, 1877)

VC61: Skipwith Common 17.8.2011 R.Crossley.

*VC64: Ellington Banks 17.8.2012 C.H.Fletcher.

Scambus eucosmidarum (Perkins, 1957)

Reported from VC63 by Ely (1992 p9; 2000 p45).

Scambus foliae (Cushman, 1938)

Reported from VC61 by Shaw (2006 p219) and Mayhew *et al.* (2009 p15).

Scambus inanis (Schränk, 1802)

Fitton *et al* (loc. cit.) called this *Scambus annulatus*. It has been split into three species by Klaus Horstmann (Shaw, 2006) but they overlap and some specimens are not determinable. There are unconfirmed reports [mostly as *S. annulatus* (Kiss, 1924)] from VC61 by Mayhew *et al.* (2009 p15), from VC62 by Morley (1908 p86), from VC63 by Skidmore (2006 p148) and from VC64 by Ely (1987b p24); reported from VC61 by Hincks (1953b p135) and from VC63 by Ely (1992 p9) and Coldwell (1999 p61) [all as *annulatus*].

*VC62: Malton Road, York 3.5.1944 J.H.Elliott.

*VC64: Morton 29.8.1942 J.Wood

Scambus nigricans (Thomson, 1877)

Reported from VC62 by Fordham (1920 p181), from VC63 by Ely (1992 p9; 2000 p45) and from VC64 by Ely (1987b p24).

*VC61: Allerthorpe 12.8.1923 W.J.Fordham.

*VC65: Thorpe Perrow Arboretum 17.7.1982 W.A.Ely.

Scambus pomorum (Ratzeburg, 1844)

Reported from VC61 by Ely (1986a p103) and Key (1987 p221) and from VC64 by Mayhew *et al.* (2009 p16).

*VC62: Ashberry Pastures 15.6.1977 P.Skidmore.

*VC63: Marley 5.6.1948 J.Wood.

Scambus sagax (Hartig, 1838)

VC64: Clifton Ings 26.8.1945 J.H.Elliott.

Scambus signatus (Pfeffer, 1913)

Reported from VC63 by Ely (1992 p9; 2000 p45) [as *S. annulatus* (Kiss, 1924)] and from VC64 by Ely (2012 p227).

*VC61: Allerthorpe 25.8.1952 J.H.Elliott.

*VC62: Malton Road, York 14.5.1944 J.H.Elliott.

Scambus vesicarius (Ratzeburg, 1844)

Reported from VC61 by Mayhew *et al.* (2009 p16) and from VC63 by Humberstone & Ely (1986 p12), Whiteley (1989 p97) and Ely (1992 p9).

*VC62: Snargate 2.9.2011 W.A.Ely.

*VC64: Clifton Ings 11.8.1945 J.H.Elliott.

Acropimpla didyma (Gravenhorst, 1829)

Reported from VC63 by Ely (2000 p45) and from VC64 by Ely (1987b p24).

*VC61: Allerthorpe 8.5.1920 W.J.Fordham.

Gregopimpla inquisitor (Scopoli, 1763)

Reported from VC61 by Hincks (1953 p135) and Mayhew *et al.* (2009 p15) and from VC63 by Ely (2011a p202).

*VC65: Marne Barracks 15.7.2011 C.H.Fletcher

Iseropus stercorator (Fabricius, 1793)

Unconfirmed reports from VC63 by Wilson (1881 p153) and Roebuck (1907 p215) and from VC64 by Wilson (1881 p153), Bairstow *et al.* (1882 p108), Roebuck (1907 p215) and Morley (1908 p64); reported from VC61 by Hincks (1953 p135), from VC63 by Ely (1992 p9; 2000 p45) and Skidmore (2006 p148) and from VC64 by Ely (1987b p24).

Tromatobia forsiusi (Hellén, 1915)

There is an unconfirmed report from VC63 by Skidmore (2006 p148).

Tromatobia lineatoria (Villers, 1789)

There are unconfirmed reports from VC63 by Bairstow *et al.* (1882 p108), Roebuck (1907 p215) and Morley (1908 p115); reported from VC61 by Ely (1985 p76) and Mayhew *et al.* (2009 p16), from VC62 by Hincks (1943 p122; 1944 p37) and Walsh & Rimington (1956 p277), from VC63 by Hincks & Dibb (1940 p175), Ely (1992 p10; 2000 p45) and Coldwell (1999 p61) and from VC64 by Hincks & Dibb (1940 p175) and Ely (2012 p227).

VC65: Jetties Riverside Common, Brompton Bridge 1.7.2013 W.A.Ely

Tromatobia ovivora (Boheman, 1821)

There is an unconfirmed report from VC62 by Fordham (1929 p375) and Walsh & Rimington (1956 p277); reported from VC63 by Bateson (2002 p43).

*VC64: Cawood 1977 J.Payne.

Tromatobia variabilis (Holmgren, 1856)

Reported from VC63 by Ely (1986b p14; 1992 p10).

Zaglyptus multicolor (Gravenhorst, 1829)

Reported from VC61 and VC64 by Mayhew *et al.* (2009 p16) and from VC63 by Ely (1992 p10; 2000 p45) and Coldwell (1999) p61.

Zaglyptus varipes (Gravenhorst, 1829)

Reported from VC63 by Ely (1992 p10) and Coldwell (1999 p61) and from VC64 by Ely (1987b p24).

Clistopyga incitator (Fabricius, 1793)

Reported from VC61 by Mayhew *et al.* (2009 p13), from VC62 by Walsh & Rimington (1956 p277) and Mayhew *et al.* (2009 p13), from VC63 by Hincks & Dibb (1940 p175), Ely (1992 p10) and Coldwell (1999 p61) and from VC64 by Morley (1918 p398), Anon (1919 p35), Fordham (1920 p182), Ely (1987b p24) and Mayhew *et al.* (2009 p13).

*VC65: Hutton Conyers 1.8.2011 C.H.Fletcher.

Clistopyga rufator Holmgren, 1856

VC64: Little Ouseburn 3.7.2011 W.A.Ely.

Dreisbachia pictifrons (Thomson, 1877)

*VC62: Woodside 2.9.2011 W.A.Ely.

VC63: Anston Stones Wood 5.9.2004 W.A.Ely.

*VC65: Langton Wood 9.6.2011 W.A.Ely, M.McKerchar.

Schizopyga circulator (Panzer, 1801)

Reported from VC61 by Mayhew *et al.* (2009 p16).

*VC63: Catcliffe 25.8.2001 W.A.Ely.

*VC65: Cordilleras 18.8.1990 W.A.Ely.

Schizopyga frigida (Cresson, 1870)

Reported from VC61, VC62 and VC64 by Mayhew *et al.* (2009 p16) and from VC63 by Ely (1992 p10; 2000 p45).

Schizopyga podagrica Gravenhorst, 1829

Unconfirmed report from VC62 by Key (1987 p74).

Polysphincta rufipes Gravenhorst, 1829

Reported from VC64 by Ely (2011b p215).

*VC62: Bank Top Farm, Northallerton 9.6.2011 W.A.Ely, M. McKerchar

*VC63: Pit House West, Rother Valley CP 20.8.2000 W.A.Ely

Polysphincta tuberosa Gravenhorst, 1829

Reported from VC61 by Mayhew *et al.* (2009 p15) and from VC63 by Anon (1986 p8), Whiteley (1989 p51) and Ely (1992 p10; 2000 p46).

*VC62: Over Dinsdale, Northallerton 29.6.2011 W.A.Ely.

*VC64: Piney Moor Wood 2.9.1989 W.A.Ely.

*VC65: Hutton Conyers 31.8.2011 C.H.Fletcher.

Polysphincta vexator Fitton, Shaw & Gauld, 1988

VC62: Fen Bog 15.8.2011 R.Crossley.

Acrodactyla carinator (Aubert, 1965)

Reported from VC64 by Shaw (2006 p219) and Mayhew *et al.* (2009 p13).

*VC63: Barrow Colliery site, Barnsley em. 5.5.2013 J.D.H.Brown

Acrodactyla degener (Haliday, 1838)

Fitton *et al.* (loc. cit) reported that two forms of this ichneumon occurred in the UK and listed their differences but did not formally separate them into distinct species. Klaus Horstmann has now done this, based partly on specimens in the National Museums of Scotland, but this has not yet been published. All previous records are, therefore, unconfirmed, including the reports from VC63 by Humberstone & Ely (1986 p12), Whiteley (1986 p97) and Ely (1992 p10) and from VC64 by Ely (1987a p30). The only confirmed specimens are the ones seen by Horstmann and reported from VC61 and VC64 by Mayhew *et al.* (2009 p13).

*VC62: Scawton em. 6.5.1997 G.Oxford (det K.Horstmann).

Acrodactyla quadrisculpta (Gravenhorst, 1820)

VC63: Kilnhurst Ings 7.6.2000 W.A.Ely.

*VC64: Blubberhouses Moor 21.8.2011 A.R.Godfrey.

*VC65: Thwaite, Swaledale 3.7.2013 W.A.Ely.

Acrodactyla similis Horstmann, manuscript name

Reported from VC61 and VC64 [as *A. degener* (Haliday, 1838) but seen by Horstmann] by Mayhew *et al.* (2009 p13).

Megaetaira madida (Haliday, 1838)

Reported from VC61 and VC64 by Mayhew *et al.* (2009 p15) and from VC63 by Ely (1992 p10).

*VC65: Birk Gill 7.7.1984 W.A.Ely.

Sinarachna nigricornis (Holmgren, 1860)

Reported from VC64 by Ely (1991 p150).

Sinarachna pallipes (Holmgren, 1860)

Reported from VC65 by Ely (1987a p30).

Zatypota albicoxa (Walker, 1874)

Reported from VC61 and VC64 by Shaw (2006 p219) and Mayhew *et al.* (2009 p17).

Zatypota bohemani (Holmgren, 1860)

Reported from VC61 and VC64 by Mayhew *et al.* (2009 p17) and from VC63 by Ely (1992 p10).

*VC62: Garbutt's Ghyl 2.9.2011 W.A.Ely.

Zatypota discolor (Holmgren, 1860)

VC62: May Moss 10.8.2013 W.A.Ely.

Zatypota percontatoria (Muller, 1776)

Unconfirmed report from VC61 by Anon (1919 p35) and Fordham (1919 p70); reported from VC61 by Mayhew *et al.* (2009 p17) and from VC63 by Ely (1992 p11).

*VC64: Staveley NR 3.8.2011 C.H.Fletcher.

References

- Anon (1919) Yorkshire Naturalists' Union: Entomological Section Annual Meeting. *Entomologist's Monthly Magazine (3rd Series)* 5, p35.
- Anon (1986) Saturday, 12th April, 1986. Roche Abbey woodlands. *Rotherham Naturalists' Society Newsletter* 1986/3, p8.
- Bairstow, S.D., Roebuck, W.D. and Wilson, T. (1882) Yorkshire Hymenoptera: Third List of Species. *Yorkshire Naturalists' Union Transactions* 1880
- Bateson, D. (2002) *Wildlife communities inhabiting Loversall Delph*. Yorkshire Wildlife Trust.
- Carr, J.W. (1914) Ichneumonidae from Yorkshire & Lincolnshire. *The Naturalist* 39, p94.
- Coldwell, J.D. (1999) Insects of the Barnsley Area. *Sorby Record Special Series* 12.
- Ely, W.A. (1985) Entomology. in Yorkshire Naturalists' Union Excursions in 1984. Allerthorpe Common (VC61). *The Naturalist* 110, p75-6.
- Ely, W.A. (1986a) Entomology. in Yorkshire Naturalists' Union Excursions in 1985. Cat Babbleton (VC61). *The Naturalist* 111, p103.
- Ely, W.A. (1986b) Report on Zoology Section Visit to Parkgate, 13th July 1985. *Sorby Natural History Society Newsletter* 224, p13-4.
- Ely, W.A. (1987a) Dipterists' Autumn Meeting in North-West Yorkshire 2nd - 6th October, 1985. *YNU Bulletin* 7, p30-1.
- Ely, W.A. (1987b) The Pimplinae (Hymenoptera, Ichneumonidae) of Askham Bog. *YNU Bulletin* 8, p23-5.
- Ely, W.A. (1991) Entomology. in Yorkshire Naturalists' Union Excursions in 1989. Bilton Banks (VC64). *The Naturalist* 116, p149-50.
- Ely, W.A. (1992) The Ichneumons of South Yorkshire. 1. Pimplinae. *Sorby Record* 28, p7-13.
- Ely, W.A. (2000) Ichneumons of the Sorby Area: Update on Pimplinae. *Sorby Record* p44-48.
- Ely, W.A. (2011a) Hymenoptera – Parasitica. in Henderson, A. & Norris, A. Yorkshire Naturalist's Union Excursions in 2011. Went Ings, Sykehouse (VC63) 21 May 2011. *The Naturalist* 136, p202.
- Ely, W.A. (2011b) Hymenoptera – Parasitica in Henderson, A. & Norris, A. Yorkshire Naturalist's Union Excursions in 2011. Gunnerside & Low Row (VC65) 13 August 2011. *The Naturalist* 136, p215.

- Ely, W.A. (2012) Ichneumons in Henderson, A. & Norris, A. Yorkshire Naturalist's Union Excursions in 2012. *The Naturalist* 137, p227-8.
- Fitton, M.G., Shaw, M.R. & Gauld, I.D. (1988) Pimpline Ichneumon-flies. *Handbooks for the Identification of British Insects* Vol 7, Part 1.
- Fordham, W.J. (1919) Notes on the Entomology of the Bubwith District. *The Naturalist* 44, p13-6, 70.
- Fordham, W.J. (1920) New and Interesting Yorks. Hymenoptera. *The Naturalist* 44, 45, p181-2.
- Fordham, W.J. (1924) *Ephialtes tuberculatus* Fourc., an Ichneumon Fly new to Yorkshire. *The Naturalist* 49, p309.
- Fordham, W.J. (1926) Some Yorkshire Saw-flies and Ichneumon Flies. *The Naturalist* 51, p117-8.
- Godfrey, A. & Whitehead, P.F. (2000) The Diptera, Coleoptera and other invertebrates recorded from oak sap-flows at Brayton Barff, North Yorkshire. *Br. J. Ent. Nat. Hist.* 14(2): 65-81
- Hammett, J. & Hammett, T. (1985) Thursday, 16th May, 1985. Potteric Carr. *Rotherham Naturalists' Society Newsletter* 1985/2, p10-1.
- Hincks, W.D (1943) Coleoptera and Other Orders in Anon Yorkshire Naturalists at Scarborough. *The Naturalist* 68, p122-3.
- Hincks, W.D. (1944) Hymenoptera in Anon The Yorkshire Naturalists' Union's Eighty-second Annual Report. *The Naturalist* 69, p36-8.
- Hincks, W.D. (1951) Hymenoptera in Anon The Yorkshire Naturalists' Union Eighty-ninth Annual Report. *The Naturalist* 76, p26-9.
- Hincks, W.D. (1953) X. Hymenoptera excluding Aculeata. in Anon The Entomology of Spurn Peninsula. *The Naturalist* 78, p129-39.
- Hincks, W.D. (1955) Hymenoptera in Anon The Yorkshire Naturalists' Union Ninety-third Annual Report. *The Naturalist* 80, p21-2.
- Hincks, W.D. & Dibb, J.R. (1940) Some Northern records of Ichneumonidae. *The Naturalist* 65, p173-6.
- Humberstone, P. & Ely, W.A. (1986) Saturday, 10th August, 1985 - Tinsley Sewage Farm. *Rotherham Naturalists' Society Newsletter* 1986/1, p12.
- Key, R. (1987) *Invertebrate Site Register Report 77II - North Yorkshire - East*. NCC.
- Mayhew, P.J., Dytham, C., Shaw, M.R. & Fraser, S.E.M. (2009) Collections of ichneumonid wasps (subfamilies Diacritinae, Diplazontinae, Pimplinae and Poemeniinae) from woodlands near York and their implications for conservation planning. *The Naturalist* 134, p 3-24.
- Morley, B. (1918) Yorkshire Naturalists' Union: Entomological Section. *The Naturalist* 43, p398-9.
- Morley, C. (1908) *Ichneumonologia Britannica. The Ichneumons of Great Britain. III. Pimplinae*. London: Brown.
- Roebuck, W.D. (1907) Hymenoptera. in Page, W A *History of Yorkshire Vol 1*. Constable & Co., London
- Shaw, M.R. (2006) Notes on British Pimplinae and Poemeniinae (Hymenoptera, Ichneumonidae), with additions to the British List. *British Journal of Entomology & Natural History* 19, p217-38.
- Skidmore, P. (2006) An Inventory of the Invertebrates of Thorne and Hatfield Moors. *Thorne and Hatfield Moors Monograph* 2.
- Skidmore, P., Limbert, M. & Eversham, B.C. (1987) The Insects of Thorne Moors *Sorby Record* **23** (Supplement): 89-[153].
- Walsh, G.B. & Rimington, E. (1956) *Natural History of the Scarborough District*. Scarborough Field Naturalists' Society.
- Whiteley, D. (1989) Hoverflies and other notable Insects at Tinsley Sewage Farm. *Sorby Record* 25, p97-8.
- Wilson, T. (1881) Ichneumonidae at York. *The Naturalist* 6, p153

Gains and losses of the *Andrena* and *Panurgus* mining bees (Hym., Andrenidae) in Watsonian Yorkshire

M. E. Archer

Email: marcher756@btinternet.com

The aims of this paper are to assess the gains and losses of species of the Andrenidae from the 19th century until 2012 and to try to assess changes in their abundance during the first and last fifty years of the 20th century. All the records are derived from the Watsonian Yorkshire electronic database. To 2012 this database consists of 33,752 records, of which 4,690 are records of the Andrenidae.

Yorkshire quality coding for the solitary aculeates is based on the number of 1km squares in which each species has been found. Currently to 2010 there are four categories of more or less equal numbers of species: Rare (wasps: 1-7; bees: 1-10), Occasional (wasps: 8-23; bees: 11-27), Frequent (wasps: 24-44; bees: 29-68) and Common (wasps: 46-122; bees: 69-238). The solitary wasps and bees are treated separately since bees are represented by more records.

Results and Analysis

Thirty-five species of *Andrena* and one species of *Panurgus* have been recorded in Watsonian Yorkshire. Two of them (*A. falsifica* recorded in the 1920s and *A. labiata* recorded in the 1920s and 1940s) are considered to be extinct in the county and the records are well to the north of their current British distributions.

Five species (*A. ovatula*, *A. pilipes*, *A. similis*, *A. tibialis* and *P. banksianus*) were first recorded in the second half of the 20th century and, except for *A. pilipes* and *P. banksianus*, are still being recorded in the 21st century. *A. pilipes* was last recorded in the 1950s and *P. banksianus* was recorded in the 1970s and 1980s and both are now considered to be extinct in Yorkshire, being well to the north of their current British distributions. *A. synadelpha* was first recorded in the 21st century while *A. nitida* was recorded in the 19th century, not at all during the 20th century but re-recorded during the 21st century.

In summary, four species (*A. falsifica*, *A. labiata*, *A. pilipes* and *P. banksianus*) have been lost between the 19th century and 2012 while four species (*A. ovatula*, *A. similis*, *A. synadelpha* and *A. tibialis*) have been gained.

The numbers of records of the 28 species recorded during the 20th century were divided into those records from the first fifty years and those from the last fifty years, which are plotted against each other in Fig. 1. Despite the lack of any fixed method for species recording there does seem to be some correlation of the species between the two time periods. A significant correlation coefficient of 0.63 ($p < 0.01$) was found by using a nonparametric correlation test of Spearman rank correlation.

Since the correlation of these two data sets is not perfect (correlation coefficient = 1.0) some species will show increases or decreases of abundances between the two data sets. During the first fifty years there were fewer records (939) than during the last fifty years (2665). In order to make a comparison between the two data sets the numbers of records for each species during each fifty year period were converted into percentages. The percentage decreases or increases between the two data sets for each species can then be calculated and are shown in Table 1.

Table 1. The percentage change in the number of records for each *Andrena* species between 1900-1949 and 1950-1999 with Chi-square test of significance (P).

Species	1900-1949	1950-1999	1950-1999 Adjusted	% change	P
Significant Loss					
<i>ruficrus</i>	24	19	6.69	-72.1	<0.01
<i>fuscipes</i>	31	39	13.74	-55.7	<0.01
<i>lapponica</i>	52	77	27.13	-47.8	<0.01
<i>semilaevis</i>	63	100	35.23	-44.1	<0.01
<i>wilkella</i>	44	76	26.78	-39.1	<0.05
<i>cineraria</i>	75	137	48.27	-35.6	<0.05
Significant Gain					
<i>minutula</i>	9	73	25.72	+185.8	<0.01
<i>nigroaenea</i>	31	265	93.37	+201.2	<0.01
<i>subopaca</i>	9	80	28.19	+213.2	<0.01
<i>chrysosceles</i> *	13	199	70.12	+439.4	<0.01
<i>humilis</i> *	1	23	8.10	+710.4	<0.05
No significant change – Common & Frequent Species					
<i>barbilabris</i>	62	133	46.86	-24.4	N.S.
<i>clarkella</i>	54	118	41.58	-23.0	N.S.
<i>fucata</i>	41	92	32.42	-20.9	N.S.
<i>denticulata</i>	16	39	13.74	-14.1	N.S.
<i>haemorrhoea</i>	147	404	142.35	-3.2	N.S.
<i>carantonica</i>	114	369	130.02	+14.0	N.S.
<i>fulva</i>	51	177	62.37	+22.3	N.S.
<i>bicolor</i>	28	110	38.76	+38.4	N.S.
No significant change – Occasional & Rare Species					
<i>varians</i>	7	7	2.47	-64.8	N.S.
<i>labialis</i>	1	1	0.35	-64.8	N.S.
<i>angustior</i>	11	15	5.29	-52.0	N.S.
<i>coitana</i>	12	17	5.99	-50.1	N.S.
<i>thoracica</i>	2	3	1.06	-47.1	N.S.
<i>tarsata</i>	25	39	13.74	-45.0	N.S.
<i>praecox</i>	7	16	5.64	-19.5	N.S.
<i>helvola</i>	7	25	8.81	+25.8	N.S.
<i>nigriceps</i>	2	12	4.23	+111.4	N.S.
*these species are illustrated in Plate II, centre pages.					

To determine if the differences between the first and second fifty years are significant a chi-square test was carried out for each species. Whether the difference was significant or not significant (N.S.) for each species is given in Table 1. Six of them show significant decreases, five show significant increases and 17 show no significant differences. The 'no-significance' ones can be divided into two groups depending on their quality coding: 'Common' and 'Frequent' species versus 'Occasional' and 'Rare' ones (Table 1).

Discussion

The four species that have been lost are currently mainly distributed in southern England. These can now be regarded either as records of vagrants or as indicators of a previously more widespread British distribution. The four species gained could be a consequence of an increase in the number of recorders (Archer, 2002) who have explored more of Watsonian Yorkshire during the last fifty years compared with the first fifty years of the 20th century. In addition, a more favourable climate could cause a northward extension of the distribution of these bees.

The validity of the calculated changes in species abundances seems surprising in view of the lack of any fixed recording procedure throughout the 20th century. Nevertheless, the significant relationship between the data sets (Fig. 1) would seem to support the validity of the changes in species abundances.

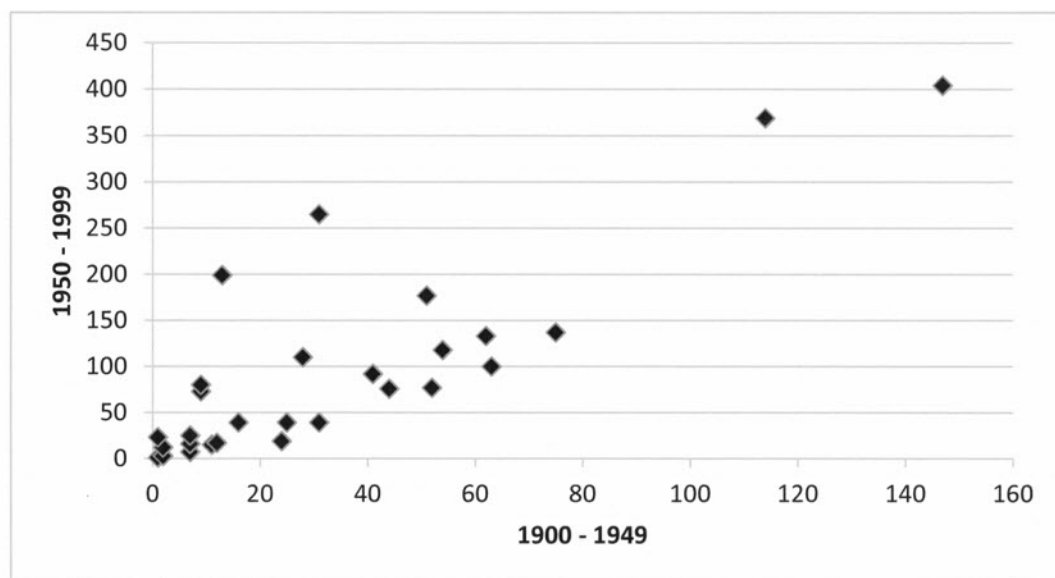


Fig. 1 The number of records of *Andrena* species during 1900-1949 compared to the number during 1950-1999

The decreases in abundance could be due to the loss of suitable habitats. Several of these bees, e.g. *A. ruficrus* and *A. fuscipes*, require open sandy sites which have been reduced under the influence of intensive agriculture. Increases in abundances could be due to more

favourable weather conditions resulting in the occurrence of a second generation, e.g. *A. nigroaenea*, or a northward extension of a species distribution, e.g. *A. humilis*.

The no-significance ‘Common’ and ‘Frequent’ bees represented by a relatively larger number of records indicate no change in their abundance. The no-significance ‘Occasional’ and ‘Rare’ bees are represented by a relatively smaller number of records, so a Chi-square test would not be able to show significant differences. By comparison with those showing significant decreases (Table 1), the no-significance ‘Occasional’ and ‘Rare’ bees showing similar percentage decrease changes, except for *A. labialis*, *A. thoracica* and *A. praecox*, could be considered under threat (Table 1).

References

Archer, M.E. (2002) *The Wasps, Ants and Bees of Watsonian Yorkshire*. Yorkshire Naturalists’ Union, York.

Erratum - Tree colonisation following sheep exclusion alongside the A169 across the North York Moors

Unfortunately an erroneous version of a table was included in Ray Goulder's article on p106 of *The Naturalist* 138. The correct version is printed below.

Table 3. Number of trees and shrubs recorded May-June 2012 in 10m radius circular quadrats in areas of Dalby Forest clear-felled in 1996.

Species of tree/shrub	*Quadrat 1		†Quadrat 2	
	>2 m height	Total	>2 m height	Total
<i>Abies grandis</i> (Giant Fir)	0	0	1	1
<i>Betula pendula</i> (Silver Birch)	28	39	12	20
<i>Betula pubescens</i> (Downy Birch)	19	23	26	44
<i>Fagus sylvatica</i> (Beech)	1	1	2	6
<i>Ilex aquifolium</i> (Holly)	0	3	0	1
<i>Larix</i> sp. (Larch)	80	85	79	87
<i>Pinus sylvestris/contorta</i> (Pine)	3	3	0	0
<i>Quercus robur</i> (Pedunculate Oak)	9	12	10	16
<i>Sorbus aucuparia</i> (Rowan)	11	25	18	47
Total of all species	151	191	148	222
Tree density (per hectare)	4809	6083	4713	7070

*Quadrat 1 centred at SE 85158574; †Quadrat 2 centred at SE 8521 8581. Area of quadrats = 314 m².

We apologise for this error. Eds.

Robert Wynne Owen (1924-1985) and his parasitological collections at Leeds: 1. Microscope slides and fish parasites

R. A Baker, C. Bradley² and P. J. Mill

School of Biology, University of Leeds, Leeds, LS2 9JT

Wynne, as he was affectionately called, died on 30 October 1985 on the campus of the University of Leeds on his way to give a lecture to a class of first year students (Jennings, 1985, 1986). He was born in Southampton in 1924 and his father was Chief Engineer on the *Aquitania*. The family later moved to Motherwell, to help with the business of a relative based there, and Wynne went to Hamilton Academy. When Wynne was 15 his family moved to Aberystwyth, medical advice suggesting that his father should be by the sea (Gwynneth Owen, pers. comm.). Wynne graduated from Aberystwyth University College (part of the University of Wales) in 1944 with an Upper Second Class Honours Degree in Zoology. Following two years at the Department of Scientific and Industrial Research, Pest Infestation Laboratory in Slough, he became a research assistant in the Department of Animal Health in Aberystwyth, obtaining an MSc in 1948 for 'Studies on the helminth parasites of domestic birds in mid and west Wales' followed by a PhD in 1951 for 'Studies on the pre-adult stages of certain nematode parasites of herbivores' (information from David Currie). He married Gwynneth in 1951 and joined the staff of the Zoology Department at the University of Leeds in 1952 as the replacement for Llewellyn Lloyd, who had retired from a Readership in Entomology and Protozoology.

Wynne was promoted to a Senior Lectureship in 1967 and was a very stimulating teacher. In 1988, the Wynne Owen Prize was instituted for an outstanding zoological laboratory project carried out by a final year undergraduate and a number of recipients of this prize have gone on to do postgraduate research for a PhD Away from the academic world, Wynne's main interests were in music and singing. He was Chairman of the 120 member strong Leeds Festival Chorus and sung tenor with them for nearly thirty years (*Yorkshire Post*, 1 November, 1985).

Wynne's research interest was in parasitology and centred mainly on the parasites of freshwater and marine fish, in which he trained a succession of postgraduate students, including some from North and South America and Africa. (Jennings, 1985, 1986). Indeed, Dick Tinsley, one of these students,

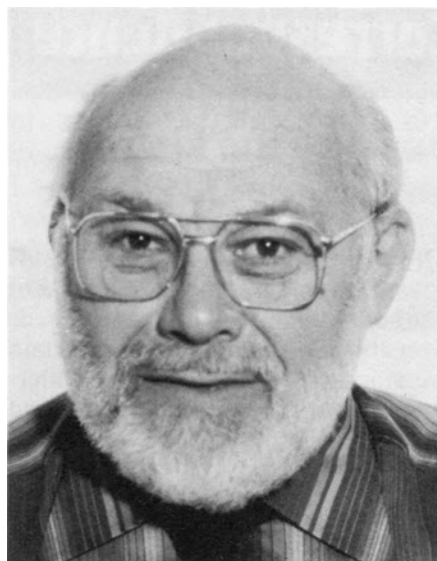


Figure 1. Dr Robert Wynne Owen

² Current address: 9 Cammell Walk, Waterbeach, Cambridge CB25 9LT

notes that "Owen produced quite a 'stable' of PhD students, including, among others Chris Arme, Les Chappell, Roger Sweeting, John Riley, Geoff Boxshall, plus some who went to Canada as faculty members" (Esch, 2007). Many of these have gone on to distinguished academic careers. As part of a final year Honours student project at the University of Leeds, one of the authors (CB) contacted some of these people in 1999 and it is clear he was held in high regard and with affection (Bradley, 1999). The comments she received included statements such as, "I would not have been anywhere without Wynne's guidance when I began...his enthusiasm for the discipline...a benign, non-interfering but very supportive supervisor...humour and mirth abounded...he was a man and a half with a huge appetite for fun and work". Jennings, in his obituaries (Jennings, 1985, 1986), described his "warm, extrovert personality and deep interest in people...his innate sense of justice and fair play... and ... [he was]...an irreplaceable mentor, colleague and friend". Boxshall noted that "He was a lovely person who took a special field course devoted to fish parasites" (Osore, M., 2002). The authors of this article confirm all of the above and one (PJM) adds that he was the ideal person with whom to discuss problems – always willing to listen and offer helpful advice.

Over many years Wynne accumulated a valuable spirit collection of parasites and some of these have been found, arranged and documented since his death (Bradley. 1999). There is also a large collection of microscope slides of parasites, mostly made by Wynne but some by his students. All of this material is described here. In the 1980 University of Leeds guide to current research, Wynne's research interests are listed as "Host-parasite relationships involving both invertebrate and vertebrate hosts. Ecological aspects of infections in fish, particularly with flukes and tapeworms. Immunological reaction to fluke infections. The protozoan parasites of molluscs."

Together with one of his students, he produced a reference list of freshwater fish parasites from Great Britain and Ireland (Chappell and Owen, 1969). The parasitic Crustacea of the North Sea have been investigated by Boxshall (1974), one of Wynne's postgraduate students, and the freshwater crustacean parasites of Yorkshire have been reviewed (Fryer, 1993). Boxshall (1987) also named a new genus and species of copepod after Wynne, *Wynnwenia distinctus* (Siphonostomatoida: Hatschekiidae) (Boxshall, 2001; Walter, 2012). A parasitic trematode, *Renicola glacialis*, from the kidney of the Fulmar *Fulmarus glacialis*, was described by Wynne and another of his postgraduate students (Riley & Owen, 1972).

The present paper deals with his collection of fish parasites. His collection of parasites of amphibians, reptiles, birds and mammals will be described in a subsequent paper (Baker & Mill, in prep.)

R. W. Owen's collections

Spirit Collections

1) A collection of parasitic Crustacea (marine and freshwater), made in the 1960s and 1970s, was deposited in the Leeds City Museum by Wynne Owen in 1981 (Acc. No LEEDM. C. 1981. 2). Hartley *et al.* (1987) lists it as IDEN 4527YH. It includes host details, dates and places of collection, collector's names (if different to Owen) and dates recorded in the database. Some of the 1960s material is attributed to Dr R. S. Brown and one specimen to each of K. Sadler and J. Langston. 64% of the specimens for which there is locality information are from Yorkshire (including the North Sea) (Table 1).

Table 1. Parasitic Crustacea Maxillopoda in the collections at Leeds City Museums. In addition to those listed are an unidentified copepod from the mouth of a perch from Roundhay Park Lake, Leeds, an isopod, *Anilocra* sp. on a fish host from Roscoff, France and a Turtox (professionally made) specimen labelled as *Pardalotus ornatus* (a copepod?). They are all parasites of fish with the exception of *Peltogaster*. (RHB=Robin Hood's Bay, Yorkshire)

Order/Family	Species	Host	Site on host	Location
Copepoda				
Order Siphonostomatoida				
Caligidae				
	<i>Caligus curtus</i>	Cod <i>Gadus morhua</i>		North Sea
	<i>Caligus diaphanus</i>	Grey Gurnard <i>Eutrigla gurnardus</i>		North Sea
	<i>Caligus elongatus</i>	Cod		North Sea
	<i>Lepeophtheirus salmonis</i>	Salmon <i>Salmo salar</i>		North Sea
	¹ <i>Lepeophtheirus thompsoni</i>	Turbot <i>Scophthalmus maximus</i>		North Sea
Eudactylinidae				
	<i>Eudactylina similis</i>	Starry Ray <i>Raja radiata</i>	Gills	RHB
Lernaeopodidae				
	<i>Lernaeopodina longimana</i>	Cuckoo Ray <i>Raja naevus</i>	Gills	RHB
	<i>Lernaeopodina longimana</i>	Spotted Ray <i>Raja montagui</i>	Gills	RHB
	<i>Lernaeopodina longimana</i>	Starry Ray	Gills	RHB
	² <i>Neobrachiella bispinosa</i>	Grey Gurnard		RHB
	<i>Salmincola salmoneus</i>	Salmon	Gills	Windermere, Cumbria
Order Cyclopoida				
Lernaeidae				
	<i>Lerne cyprinacea</i>	Goldfish		London
Order Poecilostomatoida				
Chondracanthidae				
	<i>Acanthochondria cf cornuta</i>	Flounder <i>Platichthys flesus</i>		Atlantic

Order/Family	Species	Host	Site on host	Location
	<i>Chondracanthus lophii</i>	Anglerfish <i>Lophius piscatorius</i>	Gill chamber	Atlantic
	<i>Chondracanthus zeii</i>	John Dory <i>Zeus faber</i>		Atlantic
	<i>Lernentoma asellina</i>	Grey Gurnard		E. Atlantic
Ergasilidae				
	<i>Thersitina gasterostei</i>	Stickleback		North Sea
Branchiura				
Order Arguloidea				
Argulidae				
	<i>Argulus</i> sp.	Sticklebacks		Canal, Newlay Leeds
Thecostraca - Cirripedia				
Order Kentrogonida				
Peltogastridae	³ <i>Peltogaster</i>	Common Hermit Crab <i>Eupagurus barnardus</i>		RHB

¹Two tubes; ²Now *Parabrachiella bispinosa*; ³With the isopod hyperparasite *Athelges*.

2) A spirit collection of fish parasites, currently held in the Museum of the History of Science, Technology and Medicine in the School of Philosophy, Religion and History of Science at the University of Leeds, was studied and described briefly by Bradley (1999). This collection has a database with 134 entries (Bradley, 1999) and the host, position on the host, place and date of collection have been noted for many of the specimens (Tables 2-4); for 29 of the specimens there is only limited information. 80% of the specimens, for which there is locality information, are from Yorkshire.

Apart from the specimens mentioned in tables 2-4 there are a number of unidentified copepods found on Basking Shark *Cetorhinus maximus*, the gills of Bib *Trisopterus luscus*, Whiting *Merlangius merlangus*, the gills of Haddock *Melanogrammus aeglefinus*, the mouth of Perch *Perca fluviatilis*, the gills of Plaice *Pleuronectes platessa*, the mouth of Saithe *Pollachius virens*, the gills of Thornback Ray *Raja clavata* and the gill chamber of Sole *Solea solea*, as well as larval copepods on the gill filaments of a ray *Raja* sp. Also in the collection are a number of thorny-headed worms (acanthocephalans) found in Three-spined Stickleback *Gasterosteus aculeatus*, the intestine of Perch, Minnow *Phoxinus phoxinus*, the intestine of Saithe, the intestine of Rainbow Trout *Oncorhynchus mykiss*, Mackerel *Scomber scombrus* and the intestine of Trout *Salmo trutta*; several nematodes found in Haddock, the small intestine of Perch, the intestine and rectum of Saithe and the intestine of Sole; and three leeches – from the skin of Thornback Ray, the gills of a catfish and the skin of a Sole. There are also specimens of a pseudophyllid cestode on Pollack *Pollachius pollachius*, trematodes on a mullet, eye flukes on Roach *Rutilus rutilus* and the microsporidian *Glugea* on a stickleback. The database is housed with the collection.

Table 2. Crustacea - Maxillopoda parasites in the collection at the University of Leeds – where complete or almost complete information is available.

Order/Family	Name	Host	Site on host	Location
Copepoda				
Order Siphonostomatoida				
Caligidae	<i>Caligus curtus</i>	Cod		
	<i>Caligus</i> sp.	¹ Cyclopteridae		RHB
	<i>Caligus</i> sp.	Cod	Fin	RHB
	<i>Caligus</i> sp.	Plaice	Fin	RHB
	<i>Caligus rapax</i>	Cod		
	<i>Lepeophtheirus pectoralis</i>	Plaice	Skin	
	<i>Lepeophtheirus salmonis</i>	Salmon		
	<i>Lepeophtheirus thompsoni</i>	Turbot		
Eudactylinidae	² <i>Eudactylina similis</i>	Starry Ray	Gills	RHB
Lernaeopodidae	<i>Clavella adunca</i>	Cod	Gills	
	<i>Clavella adunca</i>	Cod		RHB
	³ <i>Clavella adunca</i>	Cod		
	<i>Clavella</i> sp.	Whiting <i>Merlangius merlangus</i>	Gills	RHB
	<i>Lernaeopoda</i> sp.	Lesser Spotted Dogfish <i>Scyliorhinus canicula</i>		
	<i>Lernaeopodina cluthae</i>	Spotted Ray	Gills	RHB
	<i>Lernaeopodina cluthae</i>	Cuckoo Ray		
	<i>Lernaeopodina cluthae</i>	Cuckoo Ray	Gills	RHB
	<i>Salmincola salmonea</i>	Salmon	Gills	Windermere
	<i>Salmincola gordonii</i>	Trout	Gill chamber	Arthington, Leeds
Pennellidae	<i>Lernaeocera branchialis</i>	Whiting		RHB
	<i>Lernaeocera luscii</i>	Pouting <i>Trisopterus luscus</i>	Gills	
	<i>Lernaeocera</i> larvae	Flounder	Gills	
		Plaice		
Order Poecilostomatoida				
Bomolochidae	⁴ <i>Bomolochus</i> sp. + egg sacs	Cod		
	⁴ <i>Bomolochus soleae</i>	Cod	Nose	RHB
	⁴ <i>Bomolochus soleae</i>	Cod		
Ergasilidae	<i>Thersitina gasterostei</i>	Three-spined stickleback <i>Gasterosteus aculeatus</i>	Mouth/ gills	
	³ <i>Thersitina gasterostei</i>	Three-spined stickleback		
Chondracanthidae	<i>Chondracanthus lophii</i>	Anglerfish	Gill chamber	
Branchiura				
Order Arguloidea				
Argulidae	<i>Argulus</i> sp.	Three-spined stickleback		Canal – Newlay, Leeds

¹Probably *Cyclopterus lumpus*; ²Three tubes; ³two tubes; ⁴not a parasite of Cod - it should presumably be *Cresseyus confusus* (Stock, 1953) [syn. *Holobomolochus confusus* (Stock, 1953)]. Slide collection.

Table 3. Platyhelminth parasites in the collection at the University of Leeds – where complete or almost complete information is available.

Order/Family	Name	Host	Site on host	Location
Platyhelminthes - Cestoda - Eucestoda				
Order Bothriocephalidea				
Bothriocephalidae	<i>Bothriocephalus</i>	Bullhead <i>Cottus gobio</i>	Intestine	Plymouth
Trienophoridae	<i>Trienophorus</i>	Pike <i>Esox lucius</i>	Intestine	
	<i>Eubothrium crassum</i>	Trout <i>Salmo trutta</i>	Intestine	Thirsk, Yorkshire
	<i>Eubothrium</i>	Perch <i>Perca fluviatilis</i>	Intestine	Malham, Yorks.
Order Gyrocotylidea				
Gyrocotylidae	<i>Gyrocotyle</i>	<i>Chimaera</i> sp.	Stomach	
Order Rhinebothriidea				
Rhinebothriidae	¹ <i>Sphaerobothrium lubeti</i>	Eagle Ray <i>Myliobatis aquila</i>		RHB
Order Spathebothriidea				
Cyathocephalidae	<i>Cyathocephalus truncatus</i>	Trout	Pyloric caeca	Driffild, Yorks.
Order Tetraphyllidea				
	Tetraphyllid	Starry Ray	Spiral valve	RHB
Order Trypanorhyncha				
Sphyriocephalidae	<i>Hepatoxylon</i> sp	Salmon <i>Salmo salar</i>	Body cavity	
	Trypanorhynchan plerocercoid	Ray's Bream <i>Brama brama</i>	Muscles	RHB
	Trypanorhynchan plerocercoid	Halibut	Muscles	Leeds market
	Trypanorhynchan plerocercoid	Cuckoo Ray	Muscles	RHB
Platyhelminthes - Monogenea				
Order Dactylogyridea				
Dactylogyridae	<i>Dactylogyrus</i>	Koi Carp <i>Cyprinus carpio</i>	Gills	Burrows, Wakefield
	<i>Dactylogyrus</i>	Roach <i>Rutilus rutilus</i>	Gills	Roundhay Lake, Leeds
Order Monocotylidea				
Monocotylidae				
	<i>Calicotyle</i>	Starry Ray	Rectum	RHB
	<i>Calicotyle</i>	Thornback Ray		RHB
	<i>Calicotyle</i>	Thornback Ray	Rectum	RHB
	<i>Dictyocotyle</i>	Saithe <i>Pollachius virens</i>	Gills	
	<i>Dictyocotyle</i>	Cod	Gills	RHB
Order Mazocraeidea				
Discocotylidae	<i>Discocotyle</i>	Trout	Gills	Chelker reservoir, Yorks.

Order/Family	Name	Host	Site on host	Location
	<i>Discocotyle</i>	Cuckoo Ray	Intestine	RHB
Diclidophoridae	<i>Diclidophora sp.</i>	Saithe	Gills	
Mazocraeidae	<i>Mazocraes alosae</i>	Twaiite Shad <i>Alosa fallax</i>	Gills	Plymouth
Platyhelminthes – Trematoda - Digenea				
Order Gasterostomata				
	gasterostomatan	Anglerfish		RHB
Order Azygiida				
Hemiuridae		Saithe	Stomach	RHB
Order Plagiuchiida				
Gorgoderidae	<i>Phyllodistomum</i>	Pike		
	<i>Phyllodistomum</i>	Minnow		Boston Spa, Yorks.
Zoogonidae	<i>Zoogonoides viviparous</i>	Plaice	Rectum	RHB
Order Strigiidida				
Bucephalidae		Conger eel <i>Conger conger</i>	Small intestine	Plymouth
		Conger eel	Rectum	Plymouth

¹Synonym of *Rhodobothrium lubeti* (Euzet, 1959).

Table 4. Nematode parasites in the collection at the University of Leeds – where complete or almost complete information is available.

Order/Family	Name	Host	Site on host	Location
Secernentea - Spiuria				
Order Spirurida				
Camallanidae	<i>Camallanus</i>	Eel	Intestine	Windermere, Cumbria
Cystidicolidae	<i>Cystidicola</i>	Trout		Wray Castle, Cumbria
	<i>Cystidicola</i>	Rainbow Trout ¹ <i>Salmo gairdneri irideus</i>		Drifffield, Yorkshire
	<i>Ascarophis morrhuae</i>	Haddock <i>Merlanogrammus aeglefinus</i>		
Physalopteridae	<i>Proleptus</i>	Lesser Spotted Dogfish	Intestine	
Order Ascaridida				
Cucullanidae	<i>Cucullanus</i>	Conger eel	Intestine	Plymouth
Enoplea - Enoplia				
Order Enoplida				
Trichuridae	<i>Capillaria</i>	Trout		Embsay reservoir, Yorkshire

¹Synonym of *Oncorhynchus mykiss* (Walbaum, 1792).

Slide Collection

The collection of c.850 slides made by Wynne and some of his students is now housed at the Discovery Centre, Leeds City Museums, and is available to students from the university or, indeed, to any individuals who may wish to examine the slides. They are almost entirely of parasites and include representatives of the Protozoa (Apicomplexa and Heterokontophyta), Acanthocephala, Crustacea, Insecta, Nematoda (Adenophorea and Secernentea) and Platyhelminthes (Cestoda, Monogenea, Trematoda, Digenea and Turbellaria) (Table 5).

In terms of fish hosts, parasites of 12 species of freshwater fish and 12 of marine fish are present in the collection. There are also parasites from Grass Snake *Natrix natrix*, Frog *Rana temporaria*, 14 birds and five mammals. The material from Aberystwyth in the late 1940s comprises mainly parasites of mammals and birds. After Wynne's move to Leeds in 1952, the slides are from sites in Yorkshire, both freshwater and marine, the latter mainly from Robin Hood's Bay. There are also slides from Plymouth from the early 1950s.

Microscope slides and spirit specimens are now rarely used in teaching undergraduates and there is a risk that such collections are becoming neglected or even discarded. Such objects are in need of protection, conservation and documentation (Baker & Mill, 2005, 2006).

Table 5. Summary of the slide collection showing the orders for which specimens are present.

Phylum	Class	Subclass	Order
Acanthocephala	Archiacanthocephala		Moniformida
	Palaeacanthocephala		Echinorhynchida
Crustacea	Maxillopoda	Copepoda	Cyclopoida
		Copepoda	Monstrilloida
		Copepoda	Siphonostomatoida
		Branchiura	Arguloida
Insecta			Siphonaptera
Chordata	Tunicata	Asciacea	Enterogona
Nematoda	Adenophorea		Mermithida
			Trichurida
	Secernentea	Rhabditia	Strongylida
		Spiruria	Ascarida
			Camallanida
			Oxyurida
			Spirurida
Platyhelminthes	Cestoda	Eucestoda	Bothriocephalidea
			Caryophyllidea
			Cyclophyllidea
			Diphyllidea
			Haplobothrioidea

Phylum	Class	Subclass	Order
			Proteocephalidea
			Pseudophyllidea
			Rhinobothriidea
			Spathebothriidea
			Tetrabothriidea
			Tetraphyllidea
			Trypanorhyncha
	Monogenea	Monopisthocotylea	Capsalidea
			Dactylogyriidea
			Gyrodactylidea
			Monocotylidea
		Polyopisthocotylea	Diclybothriidea
			Diplozoidea
			Mazocraeidea
			Polyopisthocotylea
			Polystomatidea
	Trematoda	Digenea	Azygiida
			Diplostomida
			Echinostomida
			Gasterostomata
			Opisthorchiida
			Plagiorchiida
			Strigeidida
	Turbellaria		Macrostomida
			Polycladida
			Tricladida
Apicomplexa	Conoidasida	Coccidiasina	Eococcidiorida
		Gregarinasina	Eugregarinoida
Heterokontophyta	Opalineae		Opalinida

Summary

Wynne Owen was at the University of Leeds for over 30 years. His work, spirit collections and microscope slides, mainly of fish parasites, are described. Such collections as those documented here form a valuable reference of both biological and historical importance. There is a serious risk of such collections being disposed of, because they are no longer regarded as important in teaching and are currently out of vogue. However, workers on biodiversity studies and recording dataset networks in both freshwater and marine and coastal studies should find these records of value. Many of the records refer to the parasites of British fish.

Acknowledgements.

The authors would like to thank the following for their help – Geoff Boxshall, Kate Arnold-Forster, David Currie, Joe Jennings and Gwynneth Owen; also, from the Discovery Centre, Leeds City Museums, Clare Brown, Kirsty Garrod, Rebecca Machin and Rachel Marshall and,

from the School of Philosophy, Religion and History of Science, University of Leeds, Claire Jones and Kiara White.

R. Wynne Owen – ³Publications

- Arme, C., and Owen, R. W., (1964) Massive infections of the three-spined stickleback with *Schistocephalus solidus* (Cestoda: Pseudophyllidae) and *Glugea anomala* (Sporozoa: Microsporidia). *Parasitology* **54**: 10-11
- Arme, C., and Owen, R. W., (1965) Ligulosis in cyprinid fishes : a unique form of parasite interference with a vertebrate reproductive cycle. *Parasitology* **55**: 7.
- Arme, C. and Owen, R. W. (1967) Infections of the three spined stickleback, *Gasterosteus aculeatus* L., with the plerocercoid larvae of *Schistocephalus solidus* (Müller, 1776) with special reference to pathological effects. *Parasitology* **57**: 301-314.
- Arme, C. and Owen, R.W. (1968) Occurrence and pathology of *Ligula intestinalis* infections in British fishes. *Journal of Parasitology* **54**: 272-280.
- Arme, C. and Owen, R.W. (1970) Observations on a tissue response within the body cavity of fish infected with the plerocercoid larvae of *Ligula intestinalis* (L.) (Cestoda: Pseudophyllidae). *Journal of Fish Biology* **2**: 35-37.
- Chappell, L.H. and Owen, R.W. (1969) A reference list of parasite species recorded in freshwater fish from Great Britain and Ireland. *Journal of Natural History* **3**: 197-216.
- Mellors, P. J. & Owen, R. W. (1980) Some observations on the biology of a gasterostome digenetic fluke *Rhipidocotyle campanula* (Duj, 1845) of fish in the River Aire, Yorkshire . *Parasitology* **81**: xlviii.
- Owen, R. W. (1951) The helminth parasites of domesticated birds in Mid Wales. *Journal of Helminthology* **25**: 105-130.
- Owen, R. W. & Arme, C. (1965) Some observations on the distribution of *Ligula* plerocercoids in British freshwater fishes. *Parasitology* **55**: 6.
- Owen, R. W. & Coleman, G. S. (1976) The cultivation of the rumen ciliate *Entodinium longinucleatum*. *Journal of Applied Bacteriology* **41**: 341-344.
- Owen, R. W. & Coleman, G. S. (1977) The uptake and utilization of bacteria, amino acids and carbohydrates by the rumen ciliate *Entodinium longinucleatum* in relation to the sources of amino acids for protein synthesis. *Journal of Applied Bacteriology* **43**: 67-74.
- Owen, R W and Pemberton, R T (1962). Helminth infection of the starling (*Sturnus vulgaris* L.) in Northern England. *Proceedings of the Zoological Society of London* **139**: 557-587.
- Riley, J. & Owen, R.W. (1972) *Renicola glacialis* sp. nov., a new trematode from the North Sea Fulmar, *Fulmarus glacialis* (L.), with observations on its pathology. *Journal of Heminthology* **46**: 63-72.
- Riley, J. and Owen, R. W. (1975) Competition between two closely related *Tetrabothrius* cestodes of the fulmar (*Fulmarus glacialis* L.). *Zeitschrift für Parasitenkunde* **46**: 221-228.
- Riley, J. & Owen, R.W. (1972) *Renicola glacialis* sp. nov., a trematode from the North Sea Fulmar, *Fulmarus glacialis* (L.), with observations on its pathology. *Journal of Heminthology* **46**: 63-72.
- Tinsley, R. C. and Owen, R. W. 1975. Studies on the biology of *Protopolystoma xenopodis* (Monogenoidea): the oncomiracidium and life-cycle. *Parasitology* **71**: 445-446
- Tinsley, R.C. & Owen, R.W. (1978) The morphology and biology of *Xenopodistomum xenopodis* from the gall bladder of the African clawed toad, *Xenopus laevis*. *Journal of Helminthology* **53**: 307-316.

³ Complete to the best of our knowledge.

References

- Baker, R. A. and Mill, P. J. (2005) Endangered species - The zoological microscope slide collection at the University of Leeds. *Quekett Journal of Microscopy* **40**: 3-11.
- Baker, R.A. And Mill, P.J. (2006) Further notes on the zoological microscope slide collection at the University of Leeds: Sigmund mounts. *Quekett Journal of Microscopy* **40**: 343-352.
- Baker, R. A. & Mill, P. J. (in prep.) Robert Wynne Owen (1924-1985) and his parasitological collections: 2. Parasites of amphibians, reptiles, birds and mammals.
- Boxshall, G. A. (1974) Infections with parasitic copepods in North Sea marine fishes. *Journal of the Marine Biological Association* **54**: 355-372.
- Boxshall, G. (2001). Copepoda (excl. Harpacticoida) in: Costello, M. J., Emblow, C. & White, R. J.(eds). European register of marine species: a check-list of the marine species in Europe and a bibliography of guides to their identification. *Collection Patrimoines Naturels (Muséum national d'Histoire naturelle, Paris)* **50**: pp. 252-268.
- Bradley, C. (1999) The fish parasite collection of Wynne Owen and more recently collected material. *Unpublished student final year project Department of Biology, University of Leeds*. 74 pp.
- Chappell, L.H. and Owen, R.W. (1969) A reference list of parasite species recorded in freshwater fish from Great Britain and Ireland. *Journal of Natural History* **3**: 197-216
- Esch, G. W. (2007) *Parasites and Infectious disease: discovery by serendipity and otherwise*. Cambridge University Press, New York. pp 26, 27.
- Fryer, G. (1993) *The freshwater crustacea of Yorkshire – a faunistic and ecological survey*. Yorkshire Naturalists' Union and Leeds Philosophical and Literary Society. 1-312.
- Hartley, M. M., Norris, A., Pettitt, C. W., Riley, T. H and M A Stier (1987) *Register of Natural Science Collections in Yorkshire and Humberside*. Area Museum and Art Gallery Service for Yorkshire and Humberside. 89 and 183.
- Jennings, J.B. (1985) Obituary R. Wynne Owen. *The Reporter*, The University of Leeds, No. 245. 8 November 1985: 3.
- Jennings, J.B. (1986) Obituary Dr R. Wynne Owen. *The University of Leeds Review* **28**: 342-343.
- Osores, M. (2002) An Interview with Dr Boxshall. *Monoculus: The Newsletter of the World Association of Copepodologists* **44**: 9-11.
- Riley, J. & Owen, R.W. (1972) *Renicola glacialis* sp. nov., a trematode from the North Sea Fulmar, *Fulmarus glacialis* (L.), with observations on its pathology. *Journal of Heminthology* **46**: 63-72.
- Tinsley, R. C., Owen, R.W. (1975). Studies on the biology of *Protopolystoma xenopodis* (Monogeneoidea): the oncomiracidium and life-cycle. *Parasitology* **71**: 445-46.
- Tinsley, R.C. & Owen, R.W. (1978) The morphology and biology of *Xenopodistomum xenopodis* from the gall bladder of the African clawed toad, *Xenopus laevis*. *Journal of Helminthology* **53**: 307-316

Web site

- Walter, T. C. (2012). *Wynnwenia* Boxshall, 1987. In: Walter, T.C. & Boxshall, G. (2012). World Copepoda database:
<http://www.marinespecies.org/copepoda/aphia.php?p=taxdetails&id=348182>

A provisional vascular plant red data list for VC63 (S.W. Yorkshire)

The first season's fieldwork - a review

G.T.D. Wilmore

email: consultecol.wilmore@btinternet.com

Introduction

In 2012, I announced plans to begin working towards the production of a Red Data Plant List for VC63 (Wilmore, 2013a) and gave a fairly comprehensive inventory of plant taxa which are (or were!) known to be rare or scarce in the vice-county. This list of plants was broken down into several categories: 1) Native Species; 2) Native Species Presumed Extinct in the VC; 3) Hybrids; 4) Archaeophytes; 5) Grey Area Species – Native or Introduced; and 6) Unconfirmed Species. The drawing up of this list was assisted and informed by Cheffings & Farrell (2005), in which various Threat Categories of Rarity are employed using IUCN (International Union for the Conservation of Nature and Natural Resources, now The World Conservation Union (WCU)) criteria. These are: Extinct (EX); Extinct in the Wild (EW) – (i.e., surviving only in captivity); Critically Endangered (CR); Endangered (EN); Vulnerable (VU) and Near Threatened (NT). In addition, there are three further categories which are not considered to be of nature conservation concern: Least Concern (LC); Data Deficient (DD) (i.e., where insufficient data exist to make a definite assessment of risk) and Not Evaluated (NE) (where no evaluation has been made against the IUCN criteria). A mention should also be made of the Waiting List (WL), adopted to cater for taxa for which there was either insufficient data, taxonomic uncertainty or uncertainty over native, archaeophyte or neophyte status, and also the Parking List (PL), where insufficient data are present to assign plants to other categories or where there is evidence that they are neophytes.

The terms 'archaeophyte' and 'neophyte' were mentioned in Preston, Pearman & Dines (2002) and refer to plants which have been introduced by various means throughout the past 2000 or so years, since the Roman occupation of these islands. Archaeophytes refer to those plant taxa which became naturalised before 1500AD, while neophytes are those which have been introduced since 1500AD, according to documentary evidence.

A leaflet was circulated towards the end of 2012 (Wilmore, 2014 in prep.) outlining a proposed field work methodology and a selection of species, some of which it was hoped to target during the 2013 field season. In addition, seven field trips were announced, to: 1) Mosaic Reserve, Austerfield, 2) Anston Stones Wood and grassland, 3) Maltby Low and Far Commons, 4) Cusworth Country Park, 5) Stanley Marsh, Stanley Ferry Flash and Southern Washlands, 6) Cromwell Bottom and the Calder and Hebble Canal and 7) Potteric Carr. Six of these were visited with excellent data recording being achieved - only the Stanley Marsh and associated venues had to be cancelled, as dense and invasive willow and birch scrub had encroached in several of these areas and the targeted rare plants could not be located. As well as the above organised field excursions, several botanists undertook personal fieldwork and provided additional records which have swelled the overall database.

The purpose of this paper is to list and review the Red Data Plant Inventory after this first season's fieldwork. To achieve anything approaching a reasonably comprehensive Red Data List will take several years but an excellent start has been made and a firm foundation has been laid. A fair proportion of the plants in the following list fall into the Least Concern (LC) threat category. National threat categories do not necessarily reflect the regional situation in a particular vice-county and, in consequence, the species listed below as LC are considered rare in VC63. The listing follows the recognised order given in Stace (2010). A comprehensive master RDP Inventory giving detailed recording information on all plants is held in the author's database as data are accumulated.

RDP Data gathered in 2013

Species	General Location	UK Threat Category	No of Sites/ Occurrences
<i>Huperzia selago</i>	High Pennine Moors	LC	3
<i>Lycopodium clavatum</i>	Ovenden Moor, Halifax	LC	2
<i>Dryopteris x deweveri</i> (<i>D. carthusiana</i> x <i>D. dilatata</i>)	Ecclesall Woods, Sheffield	NE	2
<i>Polypodium interjectum</i>	Various	LC	8
<i>Vicia sylvatica</i>	Anston Stones Wood	LC	1
<i>Vicia lathyroides</i>	Mosaic Reserve, Austerfield	LC	1
<i>Prunus x fruticans</i> (<i>P. spinosa</i> x <i>P. domestica</i>)	Anston Stones area – hedgerow	NE	1
<i>Aphanes australis</i>	Mosaic Reserve, Austerfield	LC	1
<i>Parnassia palustris</i>	Maltby Low Common	LC	1
<i>Salix x holosericea</i> (<i>S. viminalis</i> x <i>S. cinerea</i>)	Ogden Plantation, Halifax	NE	1
<i>Viola tricolor</i> ssp. <i>tricolor</i>	Mosaic Reserve, Austerfield	NT	1
<i>Viola x contempta</i> (<i>V. tricolor</i> x <i>V. arvensis</i>)	Mosaic Reserve, Austerfield	NE	1
<i>Hypericum montanum</i>	Anston Stones Grassland	NT	2
<i>Hypericum montanum</i>	Maltby Far Common	NT	1
<i>Erophila majuscula</i>	Lindrick Common Quarry	LC	1
<i>Teesdalia nudicaulis</i>	Mosaic Reserve, Austerfield	NT	1
<i>Persicaria minor</i>	Mosaic Reserve, Austerfield	VU	1
<i>Rumex maritimus</i>	Astley Lake, St. Aidans	LC	1
<i>Minuartia verna</i>	Roche Abbey/Norwood area	NT	1
<i>Stellaria pallida</i>	Mosaic Reserve, Austerfield	LC	1
<i>Samolus valerandi</i>	Potteric Carr	LC	2
<i>Pyrola rotundifolia</i> ssp. <i>rotundifolia</i>	Cromwell Bottom, Elland	NT	1
<i>Hypopitys monotropa</i>	Cromwell Bottom, Elland	EN	1
<i>Myosotis x bollandica</i> (<i>M. secunda</i> x <i>M. stolonifera</i>)	Skirden Clough, Halifax (first VC record)	NE	1
<i>Myosotis stolonifera</i>	Skirden Clough, Halifax	LC	1
<i>Clinopodium acinos</i>	Roche Abbey/Norwood area	LC	1
<i>Mentha pulegium</i>	Mosaic Reserve, Austerfield	EN	1

<i>Carlina vulgaris</i>	Lindrick Common Quarry	LC	1
<i>Cirsium dissectum</i>	Maltby Low Common	LC	1
<i>Serratula tinctoria</i>	Edge of Anston Stones Wood	LC	1
<i>Hypochaeris glabra</i>	Mosaic Reserve, Austerfield	VU	1
<i>Filago vulgaris</i>	Mosaic Reserve, Austerfield	NT **	1
<i>Dipsacus pilosus</i>	Lindrick Dale	LC	1
<i>Dipsacus pilosus</i>	S.E. of Hatfield	LC	1
<i>Anthriscus caucalis</i>	Mosaic Reserve, Austerfield	LC	1
<i>Sison amomum</i>	Field adjacent to Denaby Ings	LC	1
<i>Spirodela polyrhiza</i>	Sprotborough	LC	1
<i>Baldellia ranunculoides</i>	Potteric Carr	NT	1
<i>Luronium natans</i>	Calder & Hebble Canal, Elland	LC	1
<i>Alisma lanceolatum</i>	Potteric Carr – drain channel	LC	1
<i>Alisma lanceolatum</i>	Leeds-Liverpool Canal, Apperley Br	LC	1
<i>Groenlandia densa</i>	Askern area	VU	1
<i>Epipactis phyllanthos</i>	Cusworth Park	LC	1
<i>Neottia nidus-avis</i>	Woodland, Sprotborough	NT	1
<i>Platanthera chlorantha</i>	Maltby Far Common	NT	1
<i>Anacamptis pyramidalis</i>	Sprotborough	LC	1
<i>Ophrys insectifera</i>	Anston Stones grassland	VU	1
<i>Ophrys insectifera</i>	Maltby Far Common	VU	1
<i>Eleocharis acicularis</i>	Potteric Carr	LC	1
<i>Carex arenaria</i>	Mosaic Reserve, Austerfield	LC	1
<i>Carex hostiana</i>	Maltby Low Common	LC	1
<i>Carex lepidocarpa</i>	Maltby Low Common	LC	1
<i>Carex demissa</i> x <i>C. hostiana</i>	Maltby Low Common	NE	4
<i>Carex digitata</i>	Anston Stones Wood	LC	4
<i>Carex digitata</i>	Norwood, nr.Maltby	LC	1
<i>Melica nutans</i>	Anston Stones Wood	LC	1
<i>Hordelymus europaeus</i>	Anston Stones Wood	LC	1

Future Work

The RDP Project will continue during the 2014 field season and a series of organised field meetings, targeting a new range of species, will be drawn up and circulated widely during the coming weeks. This does not, however, preclude anyone from doing further recording of species listed above. The more comprehensive data we can gather, the better. In the end, hopefully, there will be a resulting document which will be of value to a range of national and local government organisations and large consultancies, as well as to academics, land managers, amateur botanists and wildlife enthusiasts.

Acknowledgements

The collection of data in a project such as this is very much a collaborative enterprise and a large number of the people who played such an integral part in the recent South Yorkshire Plant Atlas Project have again willingly come to the fore and are contributing significantly to the RDP Project. In particular I would like to sincerely thank Louise Hill, who organised and

led three outings, researching the rare species at each location - the Mosaic Reserve at Austerfield, Cusworth Park and Potteric Carr. Other key players in this exercise are Derek Bailey, Dr Kenneth Balkow, Robert Beevers, Bruce Brown, Graeme Coles, Everaldd Ellis, Beryl and George Griffith, Dr John Hodgson, Dr Andrew Kafel, Jill Lucas, John Scott, Jesse Tregale and Michael Wilcox. Bradford Botany Group members also participated in two of the excursions. Very many thanks to all and I hope to see you all (and others) in 2014.

References

- Cheffings, C.M. & Farrell, L. (2005) *The Vascular Plant Red Data List for Great Britain*. Species Status 7 : 1-116. JNCC, Peterborough.
- Preston, C.D., Pearman, D.A. & Dines, T.D. (2002) *New Atlas of the British and Irish Flora*. Oxford Univ. Press, Oxford.
- Stace, C.A. (2010) *New Flora of the British Isles*. 3rd Ed. Cambridge Univ. Press. Cambridge.
- Wilmore, G.T.D. (2013) A Provisional Vascular Plant Red Data List for VC63 (S.W. Yorkshire) – An Evaluation of Current Status. *The Naturalist* 138: 18-31.
- Wilmore, G.T.D. (2014 in prep.) A Provisional Vascular Plant Red Data List for VC63 (S.W. Yorkshire) – Field Recording Guidelines.
-

Field Note: Guinea Pig in the North York Moors

Chris and Helen Pellant

email: chspellant@fatoxfarm.freeseerve.co.uk

On 11 October 2013 a neighbour, Nick Hopwood, called in to show us some photos he'd just taken of a 'mystery' animal his dogs had killed near Baysdale. The location is called Hob Hole (NZ652074). This is a popular place for picnickers, walkers and illegal campers. The animal was in long vegetation beside the stream.

To us, the image seemed to show a Guinea Pig *Cavia porcellus* but, to make sure, the pictures were emailed to Colin Howes. He confirmed the identification and added the following: "Since Guinea Pigs have been popular pets for decades, if they were going to establish lasting feral populations I think we would have come across them by now. However, a 'wild' interaction is reported in the Yorkshire literature. This was of one being caught and made off with from a domestic garden in Cridling Stubbs (SE52) near Pontefract by a Tawny Owl (Johnson, 1990). A few years ago I was amazed to see a number of black Guinea Pigs grazing (free range) in a pasture on the outskirts of Pickering."

It may well be that the animal had been abandoned at Hob Hole, possibly with others.

Reference

Johnson, P. (1990) Tawny Owl taking guinea pig as prey. *YNU Bulletin* 13: 7

Field Note: A new colony of Heath Snail *Helicella itala*

David Lindley, Terry Crawford and Adrian Norris

email: david.lindley3@btinternet.com

During a recent Conchological Section field meeting to the Fridaythorpe area of the Yorkshire Wolds a visit was made to the Horse Dale and Holm Dale SSSI to the south of Fridaythorpe. This is an area of unimproved chalk grasslands with differing aspects. The Horse Dale part of the SSSI has a northwest-facing slope whilst the Holm Dale part is a southwest-facing slope. Both dales are narrow and steep-sided.

A large colony of Heath Snail *Helicella itala* was found while we were searching the Holm Dale slope (see Plate III, centre pages). The colony extends from SE88405764 at the start of Holm Dale for about 850m in a northwesterly direction. About a third of the way up the slope there has been some slippage revealing a bare scar, and it was here that the snail was most easily seen. It is clear that the colony extends some way up the slope from its base and large numbers of specimens, both adult and juvenile, were seen. This is the largest colony of Heath Snail found in Yorkshire for many years and, therefore, is of great interest and importance.

Heath Snail is a calcicole species which favours dry, open habitats and it has a patchy distribution in Yorkshire. Historically its stronghold has been on the Wolds and in coastal areas. It has also been recorded from a number of sites on the Magnesian and Corallian Limestones and in the Dales. However, it has been estimated that over the last 50 to 60 years this snail has been lost from about 70% of known sites nationally and the same pattern is mirrored in Yorkshire. The reasons for the loss are unknown but probably relate to changing farming practices and habitat loss.

This snail has a flattish discoid shell with a very wide umbilicus, making it easily distinguishable from other species. It can grow to 25mm in diameter but is usually less. Although there is a large number of varieties its colouration is usually white to cream with a dark band following the coil. Two specimens from Holm Dale are shown on Plate III, centre pages.

The authors would be very pleased to receive any reports of sightings of this species.

The millipede *Chordeuma proximum* in Yorkshire: a new county record

A. A. Wardhaugh 13 Captain Cook's Crescent, Marton, Middlesbrough TS7 8NN

On 16 May 2013 I visited the Cliff Rigg area near Great Ayton, Northeast Yorkshire (VC62) where the ground layer was searched for invertebrates. The site is a former quarry on the Cleveland Dyke. Tholeiite (a type of basalt) was extracted from here up to about 1970, mainly for use as road stone. The Dyke is a 58-million-year-old volcanic intrusion into Jurassic strata, chiefly sandstone, and is flanked by acidic oak woodland to the northeast and southwest. These woodlands are considered to be ancient semi-natural. During the visit a leaf litter sample of about two litres in volume was collected from amid boulders at the southwest margin of the quarry site (NZ5685611827) and hand-searched for invertebrates. The litter was made up very largely of Sycamore *Acer pseudoplatanus* with some oak *Quercus x rosacea* together with a little moss and was moderately moist. Along with a number of other invertebrates four millipede species were found in the sample, these being Eyed Flat-backed Millipede *Nanogona polydesmoides*, Blunt-tailed Millipede *Cylindroiulus punctatus*, White-legged Snake Millipede *Tachypodoiulus niger* and, surprisingly, *Chordeuma proximum* (one moribund male and five fairly small juveniles).



Figure 1. *Chordeuma proximum* from Cliff Rigg, NE Yorks. Length approx 11mm. The prominent 'cheeks' (cardines and stipetes) are a noticeable feature of this species.

This finding is of note because *C. proximum* has a marked southerly and westerly distribution in Britain with a few scattered records from more northwesterly sites (Lee 2006). The nearest to the present locality are Overton, Cheshire (SJ5177) and Mallsburn Woods, northwest of Carlisle, Cumberland (NY4973) (see NBN Gateway website).

On 18 August 2013 I made a visit to East Arnecliff Wood near Glaisdale, Northeast Yorkshire, approximately 23km southeast of Cliff Rigg. Leaf litter was searched in a number of areas. By chance, one site was similar to that described above, again a former quarry, albeit a small one, probably sandstone, much overgrown and within ancient semi-natural woodland (NZ789047). Various invertebrates were recorded from moderately moist Sycamore litter and moss, including the millipedes *Brachydesmus superus*, Common Flat-backed Millipede *Polydesmus angustus*, *Archiboreoiulus pallidus*, *Julus scandinavicus*, *Allajulus nitidus* and *Chordeuma* sp. Of the last, one female and a few small juveniles were found but no male, rendering certain identification to species level not possible. The centipede *Lithobius macilentus* was also recorded at the site.

Chordeuma proximum is known to have a strong association with woodland (Lee, 2006) which makes these two records intriguing; do they represent natural or introduced

populations? Both sites lie amid ancient semi-natural woodland but they are well outside the hitherto known range of this millipede and localized disturbance in the past due to mineral extraction makes introduction a possibility. In Britain this species also has a strong association with sites less than 15km from the sea, something which is true of the two localities described above.

Of the other millipedes recorded at East Arnecliff Wood, *Allajulus nitidus* is of interest being a new record for Northeast Yorkshire (VC62). Subsequently it has been found at a second woodland site in the vice-county, adjacent to Stoupe Beck near Robin Hood's Bay (NZ95250315) on 1 September 2013. Lee (2006) describes it as widespread but uncommon and more frequently recorded from the east of Britain, a millipede of both synanthropic habitats and semi-natural woodland.

Acknowledgement

I am most grateful to Paul Lee, national and Yorkshire recorder for Diplopoda, for confirming the identification of *Chordeuma proximum* from Cliff Rigg and for reading through a draft of this article. Any errors in the text are, however, mine alone.

Reference

Lee, P., (2006) Atlas of the Millipedes (Diplopoda) of Britain and Ireland. Pensoft, Sofia-Moscow.

Cross Hills Naturalists' Society

Tom Clinton Media Officer, Cross Hills Naturalists' Society

(This account is based on an original article in the *Craven Herald*, August 2013)

- *After 109 years since its formation, Cross Hills Naturalists' Society closed its doors for the last time on 31 August, 2013. An aging and declining membership, coupled with the rapid advancement of digital communication and modern media, finally led the Society to accept the inevitable.*

In 1904 "seventeen gentlemen from Cross Hills" decided to form a group in order to learn and understand more about the natural world and encourage others to join them. Regular meetings and excursions into the surrounding countryside were organised. This provided opportunities for working people to step out of their world of work in factories or mills, etc. and into the natural world that surrounded them. This period reflected the introduction of

compulsory education for children up to ten years old by the Bradford MP William E. Forster in 1870 and, later, the Secondary Education Act. As a result, people could now widen their knowledge of the natural world by going to look and experiencing it for themselves as well as reading or being taught about it.

The outings into the country and meetings were always popular and well attended by members. The Society's records show details of train timetables that were well-thumbed and used in order to extend the members' activities further afield than Craven.

The Society soon experienced the early days of sex equality. In 1907 a Miss Edith Aldis caused an earthquake in the all-male Society by writing to seek membership. This 'bomb shell' was defused by a meeting of members who decided that *"the only two members likely to be endangered by the admission of women were the only two bachelor members"*. Records show that *"either in the spirit of hope or resignation"* these two men decided that women could become members of the Society. The Society has had 15 Presidents in its 109 year history but only two women were elected to this important role: Mrs J Brigg (1946–1950) and its current and final post holder - Jean Kendrew (1994–2013).

Several members of the Society received national recognition for their work in the field of Natural History. A few examples are given here:

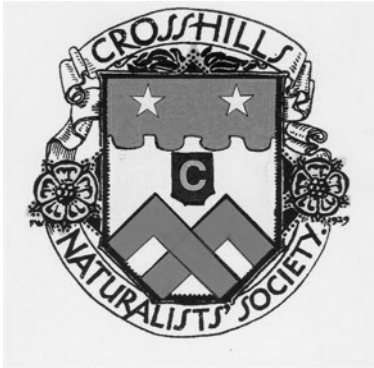
Walter Feather was a founder member and an eminent entomologist who has several moths named after him. His findings are described in a publication from the Proceedings of the Zoological Society of London in 1916.

John Holmes was the Society's Secretary for its first 23 years. In his early days he had a general interest in natural history but eventually focused on geology. His fieldwork extended to many parts of Yorkshire and on several occasions he led the Geological Section of the Yorkshire Naturalists' Union and had work published in the Yorkshire Geological Society journals. As a result of his extensive fieldwork he has a Goniatite fossil named after him – *Cravenoceros holmesii*. The genus *Cravenoceros*, which W.S. Bisat defined in 1938 to cover certain species of Goniatites, was recognised in places as far apart as the United States and North Africa within a few years. On Holmes' death his geological collection was given to Cliffe Castle Museum, Keighley.

Edward Greenwood joined the Society in 1920 and was a member for 50 years. His carefully handwritten records of his bird sightings are a monument to his ornithological skills and his fastidious record keeping. The slides he took over a long period are now lodged with the British Trust for Ornithology. All this before computers and data bases had been invented. An annual lecture was held in his memory.

Duncan Clough, a long serving member of the Society, left a legacy to it and his name was also remembered with an annual lecture.

Frank Trenouth was the longest serving President, from 1950 to 1975. He introduced the then revolutionary 35mm colour slides which enhanced the Society's visual presentations and many of the Society's procedures and have continued ever since.



The Society became one of the few societies in the region to have its own 'Coat of Arms'. A badge (see left) was designed for the Society in 1929 by Mr F Williams of the Herald's College in London following a lecture he had given to the Society in November of that year.

The Society had to survive two world wars in its first 50 years and this curtailed many of its activities. However, on 18 September 1940, the committee agreed its constitution in the President's home at 'West Bank', Main Street, Cross Hills. So, after 36 years, Cross Hills Naturalists' Society became a 'proper' society. The minutes of this historic meeting show that the first aim was *"To foster a love and appreciation of nature and to bring local naturalists and nature lovers into helpful communication with one another"*.

The Society's Microscope Group had also flourished under the long term leadership, skills and knowledge of Douglas Richardson, and produced many fascinating microscopic images.

A fortnightly Saturday evening winter programme of speakers has taken its members to many parts of the region, the UK and many other places in the world. One lecture focused on the depths of the Antarctic, revealing strange and wonderful sea life, much of it never seen by human beings before.

Cross Hills naturalists have played a key role in the restoration of lead mines in the area. The Society was deeply involved on a wide range of restoration projects including the Cononley Lead Mines, Bolton Gill Winding Shaft (Hebden Gill), Langscar Chimney at Malham and Lund's Tower (Sutton Pinnacle). The renowned Dr Arthur Raistrick played a key role in many of these activities and was instrumental in their success, so that the Society has left its physical mark on the landscape of Craven forever.

In 2004, as part of the Society's centenary celebration, it published a detailed report on its 100 years of history. In it Michael P Jackson, the Society's President from 1975 to 1994, commented *"I believe that, without wishing to denigrate that television and modern media give us much to think about, the true depth of knowledge is to be found, as far as possible, by going out into the field to experience nature at first hand"*. This appears to have been a prophetic hint about the Society's future nine years later.

The Society went on line in 2009 and launched its own web site which published details and reports of its winter and summer programmes as well as reports and images from the Microscope Group. This web site has now been archived with the British Library and can be called up as follows:-

<http://www.webarchive.org.uk/ukwa/target/191037473/source/search>

As the membership declined and recruitment of younger blood all but dried up it became clear that the Society could not sustain sufficient interest from the community. This dilemma grew as the natural world was beamed into people's lives by television, internet and now "smart" phones. Bad weather, particularly during the winter months, made it difficult for all members to attend the fortnightly meetings. Membership fell from 110 in 2000 to 49 in 2012/13. This unavoidable truth was confronted by a special meeting of members on 9th February, 2013 when a vote was taken as to whether the Society should continue or close after more than a century. It was a painful and difficult meeting but the vote was eventually taken to close the Society.

The Society's final field trip took place on Wednesday, 17 July 2013, with a botanical walk on Magnesian Limestone at Burton Leonard. On Thursday 22 August, a farewell afternoon tea party was held in St Peter's Church Hall, Cross Hills, its 'home' for many years.

On Saturday, 31 August 2013 the Cross Hills Naturalists' Society ceased to exist after 109 years of providing opportunities for the community to explore the natural world around them. The original fourteen gentlemen from Cross Hills would no doubt have been both proud and, perhaps, a little sad.

Ox Close Wood and the East Keswick Wildlife Trust

Melanie Smith, Greenfields, Whitegate, East Keswick, LS17 9HB.

Email: melanie@ekwt.org.uk

Much has been published recently about the dramatic declines in our countryside's wildlife. Reports from the major conservation organisations such as the RSPB, Woodland Trust and Yorkshire Wildlife Trust, all record evidence of the continuing decline in the UK's wild places. One conservation charity in Yorkshire, East Keswick Wildlife Trust (EKWT), is trying to stem these declines. Founded in 1992 to raise funds to purchase the 35-acre mixed species and part ancient woodland Ox Close, this independent, parish-based Trust has been purchasing sites and working with local landowners by encouraging management for the benefit of the flora and fauna for the last 20 years. In 1994 it took out management

agreements on Parish Council-owned landholdings comprising species-rich marsh, wetland, and a Magnesian Limestone quarry and its adjoining pasture. Since then the Trust's conservation work has gone from strength to strength.

By 1992 much of Ox Close Wood had been clear-felled (though some trees around the edges were left standing), timber from the middle of the wood had been sold and it was for sale for £25,000. A notice in the Parish Magazine asked for people to come forward to form a committee. They did and the East Keswick Wildlife Trust was formed as a charity. The money was raised quickly from local donations and grants, enabling the purchase of Ox Close Wood. It was a muddy field that soon grassed over and 20 years later it has transformed into a beautiful, naturally regenerated woodland.

I suppose that what we do in Ox Close is to replicate woodland life of a long time ago, when the area was covered by dense forest. The oldest or diseased trees would eventually fall to the forest floor, creating glades of light which would be grazed by wild animals, and clearings would form where wild flowers would bloom, the seed bank often having lain dormant for many years. In Ox Close we replicate this by opening east-to-west rides for sunlight to penetrate, creating a woodland edge habitat within the wood.

The creation of a woodland pasture within the wood was achieved through careful management and grazing during the winter months with the Trust's goats and Hebridean and Soay sheep. The loan of Dexter cattle will enhance the grazing management this winter. Unmanaged pasture becomes tussocky and unmanageable very quickly. Brambles, bracken, shrubs and trees are all 'waiting in the wings' to colonise the grassland and only cutting and/or grazing will keep them at bay. Scrub shades out the flowers and it is a constant battle to keep grassy areas open for flowers, scrubby areas for breeding birds and long grass and seed heads for invertebrates, creating a mosaic of habitats throughout the year.

Many of the flowers growing in Ox Close are indicators of ancient woodland and are uncommon outside the wood. In the spring the woodland floor is carpeted with Bluebell *Hyacinthoides non-scripta*, Yellow Archangel *Lamium galeobdolon*, Greater Stitchwort *Stellaria holostea*, Wood Anemone *Anemone nemorosa*, Ramsons *Allium ursinum*, Cowslip *Primula veris*, Primrose *Primula vulgaris* and Dog's Mercury *Mercurialis perennis*. Yellow Star-of-Bethlehem *Gagea lutea* and Herb Paris *Paris quadrifolia* also flower in good numbers (see Plate V, centre pages). Light to the woodland floor is restricted in summer as the woodland comes into leaf and the canopy closes, causing the ground flora to die back. However, on the managed woodland rides and open grazed pasture many unusual flowers survive. These include Common Spotted *Dactylorhiza fuchsii*, Early Purple *Orchis mascula* and Bee Orchids *Ophrys apifera*, St John's-worts *Hypericum* sp., Common Centaury *Centaureum erythraea*, Columbine *Aquilegia vulgaris*, knapweeds *Centaurea* sp., eyebrights *Euphrasia* sp., Autumn Gentian *Gentianella amarella* and Thistle Broomrape *Orobancha reticulata*.

Ox Close Wood is an important site for the rare Thistle Broomrape (see back cover) which, except for a few other locations in Yorkshire, is found nowhere else in the British Isles. Two years after EKWT had purchased Ox Close there was the most amazing flush of flowering spikes. The wood was identified as a major site for the plant and 787 of the 1013 spikes of this plant counted in Yorkshire were in Ox Close; good numbers are still being recorded today.

Broomrapes are unusual in that they lack chlorophyll, their leaves are reduced to scales and they parasitise other plants for food, in this case Creeping *Cirsium arvense* and Spear Thistles *C. vulgare*. It appeared that ground disturbance when the wood had been felled had resulted in the germination of dormant seed. Fire sites now produce good numbers of this parasite two years later, after thistles have colonised the area.

The flora and fauna in the wood would not flourish without the sympathetic management of the 70 acres of land managed by the Trust. Thousands of man-hours have been spent working in the wood over the last 20 years, all thanks to the Trust's weekly Friday voluntary work parties, working alongside a contractor. Tasks vary according to the time of year, as there are many conservation initiatives the Trust is pushing forwards.

Some of the thinned and coppiced wood is made into charcoal. Sold in the village shops, it brings in a good revenue to pay for more management works. On the charcoal-burning weekends the Trust runs a variety of workshops for all ages, including hurdle-making, greenwood furniture, coracle-making, willow-weaving, bushcraft and camp-fire cooking (see Plate IV, centre pages).

For the past 20 years EKWT has been working with the local communities, schools, Duke of Edinburgh students, Cubs, Scouts, Guides and Brownies, organising educational visits and events and guided walks for other natural history groups. EKWT encourages involvement and the teaching of conservation management, animal husbandry and conserving and protecting areas of wildlife-rich habitat within the parish, encouraging all, especially young people, to be involved in its local initiatives. It hopes to enthuse them to appreciate the countryside and to enjoy being in the natural environment.

In the past 12 months the Trust has raised £70,000 through local donations and grants to purchase The Ellikers, a five-acre pasture with woodland and marsh which lies partly on the Magnesian Limestone adjacent to the village of East Keswick. It has a rich diversity of associated flora. This will bring the Trust's private land holding to 40 acres.

The importance of this site lies not simply in its inherent value but also in the fact that it provides a wildlife corridor and living landscape of several acres, joining up four of the other EKWT nature reserves. It also links into the Trust's wild flower verge initiative, creating a wonderful mosaic of mixed habitats where wildlife will flourish and be protected for the future.

The Trust believes the recent reports of our country's declining wildlife should be a wake-up call. We should start our campaigns locally, doing everything we can to save what remains; we cannot afford to wait any longer.

Visit our website for more details about the Trust at www.ekwt.org.uk

Ox Close Wood - a historical background

Margaret Moseley, 8, Brooklands, East Keswick, LS17 9DD.

Email: margaret@ekwt.org.uk

Ox Close lies by the River Wharfe in a landscape that must have changed very little in the preceding centuries (Fig.1). Positioned over a mile from the village centre, it was part of the common lands of East Keswick and used as a wooded pasture until Enclosure at the beginning of the 19th century.



Figure 1. Detail from a map in *Vicaria Leodiensis: or the History of the Church of Leedes in Yorkshire*, Ralph Thoresby, 1724

East Keswick has an interesting geology—the western side of the parish lies on Gritstone with overlying Boulder Clay, and to the east Magnesian Limestone. This mix makes Ox Close a very diverse habitat; it has rich alluvium by the river, a central band of more acidic soil where there was once a conifer plantation and a substantial area on the limestone.

When EKWT purchased Ox Close the only evidence that this was more than a recent plantation was the surviving woodland flora. It was known that several Small-leaved Limes *Tilia cordata* grew near the river (Fig.2); these trees colonised from the south as the climate warmed after the last Ice Age, being the dominant tree in southern Britain up to the Humber by 5000BC. As temperatures subsequently cooled, it was unable to set fertile seed so ceased to spread (Pennington, 1969). The presence of this tree, also known as Pry, together with Herb Paris, another rare plant recently found in the wood, strongly indicates that this could be a remnant of ancient woodland (Rackham, 1986).



Figure 2. Small-leaved lime *Tilia cordata*

Quantities of flints have been found on the northern side of the river not far from Ox Close. These would have been brought from the Yorkshire Wolds to be knapped into tools and weapons. Therefore it is very likely that this area, with access to the river, would have been settled in the Stone Age.

With the creation of early settlements, Neolithic man must have learnt to manage woodland for his diverse needs: coppiced hazel for buildings and fencing, maiden and pollarded trees to provide timbers for large structures, fuel for cooking and warmth and a variety of woods with different properties to make tools, weapons and boats such as coracles.

There is evidence that an area of the woodland had been terraced at some time in its history. Similar terraces or lynchets are to be found 2 miles to the west at Harewood and are known to be part of early field systems. We surveyed this area in 2006 but further work needs to be done to investigate whether these terraces were for agriculture or created to help woodland management.

Designated areas of managed woodland must have been essential for every community and continued to be important when lands were organised into open fields and commons, possibly as early as Anglo-Saxon times. Many historic documents relating to Ox Close, also known as New Close, survive so that we know with certainty it was a Common Wood-pasture by the 16th century if not for many centuries before. It was on the township's

north-eastern boundary by the river and at that time covered about 42 acres (now only 35 acres). Rules and regulations for all the Common Lands were set down by the twice yearly Manorial Court Leet held at Harewood and swingeing fines laid down for anyone who transgressed. Only 18th century court records survive and these give us a clear indication that wood could be extracted during winter months from individual allotted areas which were marked out by 'mearstones' (in 1742 Isaac Boyle was fined 5s/6d for moving one of these marker stones).

Only Commoners were allowed to take timber from Ox Close and even they were forbidden to sell wood to anyone outside the Manor of Harewood. In 1754 Robert Teal was presented and fined ... "for felling Firking Rods in Keswick New Close & selling the same the sum of 5/-" and .. "John Wright for felling Stakes & Buildings and carrying the same out of the Liberty the sum of 1/-". In 1758, 7 people were fined 3d "for cutting up wood & carrying out the same out of New Close". The parish register for Harewood gives some idea of the trades besides those of farming being carried out in East Keswick during the 17th and 18th centuries: weaver, saddletree maker, lime burner and shoemaker amongst others. All these trades would have required very specialised types of wood to make tools and copious amounts of timber would have been needed to fuel the lime burning. Besides this there were buildings to be constructed, carts and furniture of various kinds to be made. Ox Close must have been a well-stocked and managed woodland to provide for all the needs of the village.

A boundary survey of Ox Close, probably dating from the early 1700s, mentions some significant trees within the described hedge line: crabtree *Malus sylvestris*, maple *Acer campestre*, elm, hazel bush *Corylus avellana*, burtree (Elder) *Sambucus nigra*, white thorn *Crataegus monogyna* and great thorn (Anon, 1698-1817). These trees, apart from the Crab Apple, are still present in a surviving hedge which includes some large elm stumps. This survey is the only record relating to Ox Close that mentions tree species besides Hazel. As well as the Small-leaved Lime mentioned earlier, oak must have almost certainly grown here, and indeed there are some large oaks on the present western boundary.

Each year quotas for summer grazing in Ox Close were agreed by the Commoners rather than the Court. In all there were just over 100 'gates' in the wood, each entitled person would be allotted a proportion of gates depending on the size of their farm and then each individual could calculate how many animals they could put out to pasture. In 1744 an agreement, that still survives, specified type and ages of animals as well as numbers for each gate. It appears that only horses, sheep and cattle could be grazed during that year (Anon, 1698-1817). No records have been found for 'pannage'—allowing pigs to forage in the wood.

During the autumn Hazel nuts were harvested (in 1733, five people were fined 2/6 each for illegally picking nuts (Anon, 1702-1774). Ox Close would have looked much as parkland does today: cattle, horses and sheep would have browsed the trees and grazed the open glades. The areas of coppiced woodland must have been protected from the animals in some way to allow regrowth.

Centuries of village collective management ended in 1803 with the Parliamentary Enclosure of East Keswick. It is clear from a detailed survey made of the village prior to Enclosure, that the Lascelles of Harewood were determined to acquire Ox Close for its wood and for use as a fox covert. In 1798, the surveyor for Lascelles writes: "The Common Pasture or rather wood called Ox Croft [sic] is well stocked with Hazle [sic] and other wood...it appears to be a thick Underwood and would answer extremely well to be kept". It is hard to imagine just how disruptive and devastating these changes must have been to the villagers. Rights to collect wood, graze and even enter Ox Close would have disappeared overnight.

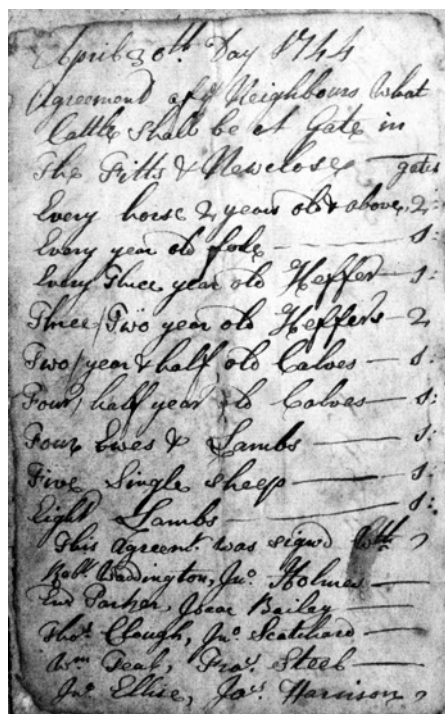


Fig. 3 A grazing agreement from 1744. West Yorkshire Archive Service, Leeds WYL977.

Fittingly, after almost two centuries of private ownership, Ox Close is once more being managed as a wood-pasture by the village community.

References

- Anon (1698-1817) East Keswick Township papers 1698-1817, Teal family papers, West Yorkshire Archive Service, Leeds.
- Anon (1702-1774) Harewood Manorial, Harewood Court Leet & Court Baron 1702-1774, West Yorkshire Archive Service, Leeds.
- Pennington, W. (1969) *The History of British Vegetation*, The English Universities Press Ltd, London.
- Rackham, O. (1986) *The History of the Countryside*, J. M. Dent, London.

YNU Annual Conference 2014

Saturday 22 March at the

Royal York Hotel (next to York Station)

The theme of the Conference will be

"Museums and Nature: the Modern Perspective"

There will be a mixture of talks and workshops.

Details of speakers, timings and lunch arrangements will be placed
on the YNU website at

www.ynu.org.uk/events/conference

Letter to the Editors - Scientific names

From **Ian McDonald**

On page 157 of the August 2013 edition of *The Naturalist*, there appears a letter to the editors from Dr. Elva Robinson, University of York. Elva says "Two major advantages of the scientific binomial names are that it is internationally meaningful and that it is stable over time, with changes properly documented." I could not disagree more. The scientific names of plants are anything but stable. For instance, Fen Violet has, over the years, been named as *Viola persicifolia*, *V. stagnina*, back to *V. persicifolia* and now back to *V. stagnina*. Another example is Yellow Sedge. Previously called *Carex demissa*, it was changed to *C. viridula* ssp. *oedocarpa*. Now it is back to *Carex demissa* again. The excuse for all this name changing is that further studies have shown that the plants actually belong to another branch of the family. Why then has another study shown that this is not so? This time wasting procedure only serves to add confusion to field botanists who are writing reports. Much more time is used to go through 'the latest' flora to see if a plant name has been changed since last Monday. In the forthcoming *Flora of Thorne Moors* I am keeping to the names in the *New Flora of the British Isles*, second edition by C. Stace, 1997. I will be stating that this is the edition used. I have already been criticised by one person for this decision but I for one am not prepared to keep buying books because 'the experts' cannot make their minds up regarding the naming of plants. Perhaps I am the only naturalist in the country with this opinion but I do not think so.

Book Review

All things Wild and Wonderful – Wildlife Imagery in Yorkshire Churches by **M. Jill Lucas**
2013. Pp156. Published by Northern Bee Books, Mytholmroyd. Available from the author at: 8, Camborne Drive, Frisby, Huddersfield, HD2 2NF: £18 + £2 p.&p.

This is a delightful book, which the author has obviously enjoyed researching and writing. In the course of thirty years of studying the subject she has visited over a thousand Yorkshire churches, and around one hundred are included in this publication.

As well as the symbolism and imagery associated with the wildlife depicted in wood, metal, stone, needlework and stained glass (see front cover), we are given a brief description of each church, its history and patron saint together with mentions of notable people with connections there in the past. There are pages of excellent photographs of artefacts dating from the 12th to the 20th century. The artistry covered is restricted to the church building itself and the internal features and fabric, so no churchyard gravestones or memorials. Nevertheless the sheer number and variety of the depictions is amazing.

The introduction gives background information on the subject and how the author became fascinated by this particular aspect of church architecture and fabric. Then we are given an alphabetical list of the churches featured in the book, followed by sections on birds, mammals, plants, other creatures, fabulous/mythical beasts and miscellaneous subjects. Each section is followed by several pages of photographs, illustrating the text. Most are arranged alphabetically, except for the images and I would have found some way of cross referencing helpful, perhaps page numbers of features/images in brackets in the list of churches given in the first section. The book closes with a useful glossary and bibliography.

There is a wealth of information on the symbolism of the plants and animals, both actual and mythical. Sources go back to Aesop, Greek myths, the Bible, the medieval bestiaries, Pagan, Islamic and Christian legend and more. Many medieval examples have a moral, such as a fox dressed in clerical vestments and often accompanied by an ape, preaching to a crowd of domestic poultry. He suddenly pounces on one of the birds, indicating the slyness of the devil, out to capture unwary souls. When carrying a hare or a goose the fox is a symbol of gluttony. Depictions of apes and monkeys are usually satirical references, often at the expense of physicians. The origin of the symbolic 'pelican-in-its-piety' is explained in detail. Crocodiles, antelopes, parrots and juniper are among the many species included in this book associated with some kind of symbolism.

This is a fascinating read and an inspiration for days out, exploring not only the thousands of churches throughout Yorkshire, but leading to a closer inspection of their man-made treasures and a deeper understanding of how our forebears looked at the world, both spiritual and temporal.

Pip Seccombe

Yorkshire Naturalists' Union Excursions in 2013

Compiled by **Albert Henderson and Adrian Norris**

GENERAL INTRODUCTION (Adrian Norris)

Owing to medical commitments and a clash of dates, I was able to attend only two of the five YNU Field Excursions. However, all of the meetings proved successful even though one of them had reduced attendance figures. Thanks are due to the various Honorary Secretaries for all their work in organising these meetings.

The weather proved to be warm and dry for all except the first event which was damp due to earlier rain. Mostly it was hot, if not too hot, with positive results for the numbers of insects recorded. The hot dry weather did, however, result in some other species being much harder to find. Such are the vagaries of our Atlantic weather systems for our wildlife heritage!

Cromwell Bottom near Brighouse (VC63) 18 May 2013 (NGR Centrum SE125224)

INTRODUCTION (Joyce Simmons)

Don Grant reports that this mature reserve has been created out of former sand and gravel workings adjacent to the River Calder and the Calder & Hebble Navigation (a canal section here). During the 1960s and 70s Elland Power Station, situated to the west of the reserve, hydraulically transported boiler ash through a pipe crossing the river to the old gravel pits. When the Elland by-pass was being constructed, the ash was dug out and used to make embankments. The result is that the soil on the reserve is a mixture of sand, gravel and boiler ash. During and since the 1990s some pits were filled with domestic refuse and they have now been landscaped and converted into green fields.

A cool drizzly start to the day greeted the 23 attendees of this meeting. We were welcomed by the volunteer team who care for the reserve and Robin Dalton from Calderdale Local Authority. Our first encounter with the area's wildlife was the heronry adjacent to the car park, now with five nests. After a cold, wet spring emergence of plants and invertebrates was delayed but molluscs were in their element!

The botanists, led by Don Grant, sought the rarities known from previous reports, but growth was limited. Orange-tip butterfly eggs and the mines of leaf-mining moths were visible, but few insects were on the wing. Those who crossed the road to investigate Elland Wood found a dazzling display of Bluebells *Hyacinthoides non-scripta* in the woodland.

The tea meeting, held in The Central Methodist Church in Brighouse, was attended by members of 15 affiliated societies and members of the local reserve group. They told us of mammal populations observed on the reserve: these included Noctule, Pipistrelle and

Daubenton's Bats, Badger and Otter. The presence of American Mink makes the survival of Water Vole here uncertain.

Management recommendations were made relating to the pond and Tag Loop. These are becoming overgrown with spindly willow and should be cleared. The woodland sites where Intermediate Wintergreen *Pyrola rotundifolia* and Yellow Bird's-nest *Monotropa hypopitys* grow also need some clearance, perhaps the removal of 50% of the tree cover, to allow light to reach the woodland floor. It was also felt that around the grassland areas encroachment of trees should be restricted. The pond has an extensive growth of the very invasive New Zealand Pigmyweed *Crassula helmsii* which covers the shore and open water and is choking out native species. It is acknowledged that this is difficult to deal with.

An *ad hoc* extra meeting was arranged at Cromwell Bottom on 17th July, which was attended by members particularly interested in the invertebrate life which was lacking on the previous meeting. The temperature was around 25°C after a rain-free period, so the small ponds were dry. Dragonflies (Brown Hawker, Common Blue Damselfly and Large Red Damselfly) were on the wing. Day-flying moths included: Shaded Broad-bar, Clouded Magpie, Narrow Bordered 5-spot Burnet as well as Cinnabar moth larvae. Scarce plants such as Broad Helleborine *Epipactis helleborine*, Twayblade *Listera ovata*, Yellow Bird's-nest (see Plate VI, centre pages) and Intermediate Wintergreen were all found.

Again, members of Cromwell Bottom Local Nature Reserve Group accompanied YNU members, and we are very grateful to them for their help and expertise in facilitating our visits.

MOLLUSCS (David Lindley)

The wet weather on the day of the Excursion produced a great number of individual specimens and 12 freshwater and 24 land molluscs were found, three of them new to the reserve. Copse Snail *Arianta arbustorum* was found mainly where the canal borders the reserve; it was, however, also found on the southern edge. Brown-lipped Snail *Cepaea nemoralis* was found in a number of areas; previously only White-lipped Snail *C. hortensis* had been found. The most interesting new addition was Girdled Snail *Hygromia cinctella*, a single specimen from near the road bridge at the entrance to the reserve. It was introduced into the country early last century and was initially confined to the extreme south west. In recent years there has been a dramatic expansion of its range.

It is worth mentioning that Shiny Glass Snail *Zonitoides nitidus* was found in numbers at the edge of one of the small scrapes. Although widespread it can be very local in nature and would not be classed as common in the area. The majority of freshwater species were from the canal but it was interesting to find some fine specimens of Porous Pea Mussel *Pisidium obtusale* in the large lagoon.

INSECTS - Parasitic Hymenoptera (Bill Ely)

Seven ichneumons and two parasitic cynipoids were collected and all are new to the site list. The campoplegine ichneumon *Alcima orbitale* (fourth Yorkshire record) and the orthocentrine ichneumon *Helictes erythrostoma* were found in Tag Loop and both are new to West Yorkshire.

PLANT GALLS (Tom Higginbottom)

Alder *Alnus glutinosa* leaves in the car park were covered in the small white pimples of the gall mite *Eriophyes laevis*. After searching amongst the Hazel *Corylus avellana*, the big-bud mite gall *Phytoptus avellanae* was discovered. Some of the Rowan *Sorbus aucuparia* leaves were covered in white pustules caused by another mite, *Eriophyes pyri*. A number of the male catkins of Goat Willow *Salix caprea* were distorted forming hard woody lumps, probably caused by a virus. On oak catkins and leaves the Currant Gall, the sexual generation of the gall wasp *Neuroterus quercusbaccarum*, was quite common. There were also the previous year's remains of other wasp galls: the Artichoke Gall *Andricus foecundatrix*, the Marble Gall *A. kollari* and the Cola-nut Gall *A. lignicolus*. On Dog Rose *Rosa canina* there were also old examples of another gall wasp *Diplolepis rosae*, which forms the Robin's Pin-cushion.

On the underside of the leaves of Lime *Tilia x europaea* trees in the hedgerow beside the A6025, the erineum of the mite *Eriophyes leisoma* was quite common. The edge of some leaves had been rolled downwards by another mite, *Phytoptus tetratrachus*. In Elland Wood whitish pimples were found on the leaves of Common Whitebeam caused by the mite, *Eriophyes arianus*. The edge of some Beech *Fagus sylvatica* leaves had been tightly rolled by yet another mite, *Acalitus stenaspis*.

FLOWERING PLANTS (Don Grant)

The rarest plants on the reserve are Yellow Birds-nest and Intermediate or Round-leaved Wintergreen. There are several orchids known from the site. Two species lost from the site due to tree and reed encroachment are Creeping Willow *Salix repens* and Needle Spike-rush *Eleocharis acicularis*.

By the river are large stands of Sweet Cicely *Myrrhis odorata* and Japanese Knotweed *Polygonum cuspidatum* together with Common Bistort *P. bistorta*. In the woodland edges there were Pendulous Sedge *Carex pendula* and Yellow Archangel *Lamiastrum galeobdolon*. A single plant of Hard Shield-fern *Polystichum aculeatum* was found here. Stonework by the canal lock had Common Whitlow-grass *Erophila verna* and Black Spleenwort *Asplenium adiantum-nigrum*. A member of Halifax Field Naturalists' reported that another adult plant and several seedlings of the Soft Shield-fern *P. setiferum* had been found in Elland Park Woods. Due to the increase in boating on the canal, it looks as if Floating Water Plantain *Luronium natans* and Narrow-leaved Water-plantain *Alisma lanceolatum* have died out, but fortunately a small colony of Arrowhead *Sagittaria sagittifolia* is still existing by the road bridge over the canal. With the cold and prolonged spring many plants were not in flower.

MOSSES and LIVERWORTS (Tom Blockeel)

The most productive habitats for bryophytes were on the floor of the secondary woodland on the old fly-ash tip, and on the bark of the trees themselves. Robust mosses occurring on the ground in the woodland included *Eurhynchium striatum*, *Rhytidiadelphus loreus*, *R. triquetrus* and *Thuidium tamariscinum*. The two *Rhytidiadelphus* species are particularly notable, as they were very rarely recorded during the 20th century in SW Yorkshire. Secondary woodland on post-industrial sites has proved to be an interesting habitat for them, even though they are rare or absent in established woodland in the vicinity. It seems that the raw substrate on old pits and waste offers fertile ground for their establishment, and it is notable that they do not generally occur in new woodland planted on grassland sites.

The epiphytic flora of the trees proved to be rather rich and astonishingly included a tuft of *Ulota calvescens* on the branch of a willow. During 2013 it has become apparent that this moss is widespread in the southern Pennines, though never previously recorded there. It was thought to be a species of strongly oceanic distribution, being known only from western Scotland and western Ireland, and a few sites in Wales and SW England. Like the tiny liverwort *Colura calyptrifolia* it is evidently extending its range eastwards. Other epiphytic species, mostly present in small quantity, included *Cryphaea heteromalla*, *Frullania dilatata*, *Metzgeria violacea*, *Orthotrichum lyellii*, *O. pulchellum*, *O. stramineum*, *O. tenellum*, *Radula complanata* and *Ulota phyllantha*. A patch of *Leskea polycarpa*, a species characteristic of the flood zone of lowland rivers, was found on Sycamore *Acer pseudoplatanus* on the river bank.

The area of wet acid ground at the eastern end of the reserve has an area of *Sphagnum* mire (with *S. squarrosum* and *S. fimbriatum*). Associated mosses included *Aulacomnium palustre*, *Calliergon cordifolium* and *Polytrichum commune*. The *Aulacomnium* included some shoots with vegetative propagules on elongate shoot apices ('pseudopodia'). These are well-known on the related *A. androgynum* but are rare in *A. palustre*.

The list of species was augmented in ruderal habitats around the periphery of the reserve. Both *Orthotrichum anomalum* and *O. cupulatum* were very fine on a concrete wall-top. *Didymodon acutus* unexpectedly occurred on a gravelly path. This is a rare species of open calcareous ground that appears to be spreading in weedy places.

APPENDIX – Elland Park Wood (Roy Crossley)

The wet conditions throughout the day precluded any fly-collecting, so I took the opportunity to go for a trip down memory lane and visit Elland Park Wood. It is more than seventy years since I played in the wood and it was one of the places that fired my first interests in natural history. Here, when children, we collected bunches of Bluebells *Hyacinthoides non-scripta* to take home for our mothers, hunted for bird nests, and later in the year built dens out of Bracken *Pteridium aquilinum*. And both we and the Bluebells live to tell the tales!

Entering the wood from Plains Lane the small valley on the left was a blaze of colour, dominated by Bluebells, but conspicuously dotted here and there with the flowers of Yellow Archangel which are always a joy to see, especially for an East Riding resident! The other common woodland spring species were seen in varying degrees of abundance, the only absentee being the Primrose *Primula vulgaris*, which I doubt has ever occurred in the wood, at least not in my lifetime.

It was good to see that Bluebells still carpet huge stretches of hillside – for this spectacle alone the wood is surely one of the natural history gems of Calderdale! But the upper slopes at the Elland end have been much damaged, presumably by scrambling bikes, with evidence of such activity throughout the wood in spite of prohibitory notices. Also, although not a major problem, it was disappointing to see evidence of fly-tipping and litter in places. There seemed to be a lot of new Holly *Ilex aquifolium* growth on the damaged area of hillside, and I also got the impression that Brambles *Rubus* sp. were taking over from Bracken on some of the Bluebell slopes. The well-known stand of Pendulous Sedge *Carex pendula* in the upper boggy areas looked spectacular, with many male spikes flowering profusely.

In spite of the rain, this diversion was well worth taking, and it is a pity that lack of time (and parking difficulties) meant that others were not able to enjoy the delights of this lovely old wood.



**Grassington, Grass and Bastow Woods (VC 64) 8 June 2013.
(NGR SD9865 &SD9965)**

INTRODUCTION (Terry Whitaker and John Newbould)

Members representing 11 affiliated societies surveyed Grass Wood SSSI, Bastow Wood SSSI and Lea Green, part of Conistone Old Pasture SSSI, across an area ranging from the River Wharfe, at an elevation of 190m in the west, to the upper slopes of Conistone Old Pasture, at around 300m in the east. Long walled fields overlies a Celtic field system tapering southwards via the Romano-British hamlet of Lea Green, abandoned after the Romans left Britain. Conistone Old Pasture and Lea Green lie on a bench of Carboniferous Limestone with outcropping limestone pavements extending into Bastow Wood. The area is considered to be of national physiographic importance with large but little-fractured inclined slabs, especially at the southern end.

Grass Wood is a botanically rich Ash woodland occupying an area of Carboniferous Limestone, west of Grassington. The wood measures 88ha and is now managed by the YWT. Many ancient woodland indicator plants are present in the ground cover along with

local rarities such as Angular Solomon's-seal *Polygonatum odoratum*, Lady's-slipper *Cypripedium calceolus* and Bird's-nest Orchid *Neottia nidus-avis*. The conifers and non-native hardwood plantings are gradually being removed and regular coppicing has been re-introduced. Bastow Wood, to the north and east of a major boundary wall, is sadly essentially unmanaged. It consists of scrub birch woodland set in rank Blue Moor-grass *Sesleria caerulea* with abandoned ash-hazel coppice to the south-east. Both areas are noted for their fauna. There are notable records of invertebrates including Northern Brown Argus and other Lepidoptera, such as Cistus Forester, Barred Tooth-striped moth, Barred Carpet and Least Minor.

The cold winter and long cool spring gave way to summery weather just in time for the meeting, but the emergence of most insects proved very late. Moth trapping on the Friday night was favoured by a calm mild night and the large catches of the many moth traps reflected this. The next day dawned warm and sunny and featured the first sightings, for the year, of many species.

Lunch was taken on the cairn, just east of Bastow Wood. In the afternoon the Reports meeting, with tea and biscuits, took place in the Devonshire Institute. The President thanked the Yorkshire Wildlife Trust for permission to visit Grass Wood, The Fountains Trust for access to Bastow Wood and the Woodland Trust for access to Lower Grass Wood and the River Wharfe.

MAMMALS and other vertebrates (John Newbould)

At the meeting members reported seeing Rabbit, a dead Hedgehog on Grass Wood Road to the northwest of Grass Wood, Roe Deer in Bastow Wood, Field Mouse and numerous Mole hills on Lea Green. No reptiles or amphibians were reported but Mrs Sharon Flint reported finding Bullhead (*Cottus gobio*) from the Wharfe and a native crayfish part-eaten possibly by an Otter.

BIRDS (John Newbould)

No member undertook a formal bird survey. Dipper was reported from the Wharfe; Blackcap, Willow Warbler and Green Woodpecker (calling) from within Grass Wood. In Bastow Wood, Chaffinch, a pair of Meadow Pipits and a Song Thrush were seen, whilst Curlew was calling from the moor to the east. Swallows were seen most of the day on open fields. As we left the tea meeting in Grassington, Lapwings were calling

INSECTS - Moths (Charles Fletcher)

The YNU lepidoptera group was invited to set up moth traps on the Friday night. A total of 15 traps were set up: 11 MV and 4 actinic. The night was comparatively warm and there was a good catch of typical moths associated with upland woodland and a total of 77 species recorded.

Micromoths are somewhat under-recorded at Grass Wood and although there were comparatively few species seen, these included several new to the site including *Coleophora otidipennella*, *Caloptilia robustella*, *Elachista apicipunctella*, *Capua vulgana* and *Epinotia tetraquetra*. Macromoths included many species which are scarce on the lower ground such as the large numbers of Lunar Thorn *Selenia lunularia*. This species has virtually disappeared from lowland Yorkshire and is now quite local. Common Lutestring *Ochropacha duplaris*, Broken-barred Carpet *Electrophaes corylata* and Barred Umber *Plagodis pulveraria* also appeared in every trap and were some of the commonest species present. Juniper Pug *Eupithecia pusillata* and Coronet *Craniophora ligustri* were both on the wing very early in what was generally a late year due to the cold spring. Other notable ones included Beautiful Carpet *Mesoleuca albicillata*, Green Silver-lines *Pseudoips prasinana*, Seraphim *Lobophora halterata* and Alder Moth *Acronicta alni*.

Many additional species were seen by day on the Saturday. Larvae of Barred Tooth-striped *Trichopteryx polycommata* were found on Wild Privet *Ligustrum vulgare*. In Bastow wood the attractive day-flying *Panalia leuwenhoekella* was seen over the grassland along with Speckled Yellow *Pseudopanthera macularia*, Mother Shipton *Callistege mi* and Cistus Forester *Adscita geryon*, all flying in the sunshine on what was a very productive outing.

INSECTS - Parasitic Hymenoptera (Bill Ely)

Light traps operated overnight caught some ichneumons and others were collected by Bill Ely & Tony Hunter, a visiting entomologist from National Museums Liverpool, all in Roadside Wood. Thirteen of the ichneumons were additions to the reserve list, with the total now 36. All seven proctotrupoids collected are additions to the reserve list, with that total now 15. The ichneumon *Stilbops limneriaeformis* was in one of the light traps and is **new to Yorkshire** and seems to be new to England as the previous records are from Ireland and Scotland. The ichneumon *Cylloceria melancholica* is the 9th Yorkshire record, the first for a quarter of a century and the first in VC64. The diapriids *Spilomicrus bipunctatus* (4th Yorkshire record) and *Spilomicrus integer* (5th Yorkshire record) are also new to VC64. These are all new to the YDNP, as are the cryptine ichneumon *Mesoleptus vigilatorius*, the campoplegine ichneumon *Dusona bicoloripes*, the tersilochine ichneumon *Phrudus defectus*, the ichneumonine *Homotherus varipes* and the proctotrupids *Disogmus areolator*, *Phaneroserphus calcar* and *Cryptoserphus aculeator*.

INSECTS - Diptera (Andrew Grayson)

The most noteworthy examples occurred within the main part of Grass Wood which was dissected by paths and contained several small glades. The local hoverfly *Portevinia maculata* occurred around its food-plant Ramsons *Allium ursinum* near the road at the lower part of Grass Wood. A reasonable quantity of decaying and dead wood and their surrounds provided suitable habitat for the local hoverflies *Criorhina berberina*, *Ferdinandeia cuprea* and *Xylota jakutorum*, plus the Common Awl-fly [Xylophagidae] *Xylophagus ater*. Another local species was the marsh-fly *Pherbellia dubia*.

PLANT GALLS (John Newbould)

Just two galls were noted on the day. In Bastow Wood two of the Silver Birch had the witches' broom *Taphrina betulina* whilst in Grass Wood Bird Cherry had the red pustules of *Phyllocoptes eupadi*.

FLOWERING PLANTS (John Newbould)

Grass Wood is dissected by paths and contains several small glades. The canopy is not dense, allowing Bluebell to dominate the ground flora. There were numerous coppice stools of Hazel *Corylus avellana* and occasional Wych Elm *Ulmus glabra* in the Ash-Rowan-Dog's Mercury NVC W9 vegetation community. Bird Cherry *Prunus padus* was distinctive by its flowers. By the path a patch of Herb Paris *Paris quadrifolia* and Lily-of-the-valley *Convallaria majalis* were noted, as were also four plants of Columbine *Aquilegia vulgaris* alongside a public footpath. However, two of the four plants were pink (some recorders rejecting such a record as a garden escape).

Bastow Wood is one of those rare wood pastures found in the Yorkshire Dales. Birch *Betula pendula* is frequent with many young trees invading the grassland. Ash *Fraxinus excelsior*, abundant Hazel, Sycamore, Rowan *Sorbus aucuparia*, with rare Bird Cherry, Blackthorn *Prunus spinosa* and Hawthorn *Crataegus monogyna* from scattered NVC W9 woodland amongst the areas of limestone outcrop and pavement. Woodland ground flora noted here included Dog's Mercury *Mercurialis perennis*, Wood Anemone *Anemone nemorosa*, Crosswort *Cruciata laevipes* and Wood Violet *Viola riviniana*. The grassland (as in the adjacent Lea Common) is composed of the Blue Moor-grass - Limestone Bedstraw *Galium sternerii* community NVC **CG9**. Here Mountain Pansy *Viola lutea*, Bird's-eye Primrose *Primula farinosa* (at SE9910 6596) occasional Cowslips *P. veris* with Primrose *P. vulgaris* and Wild Thyme *Thymus polytrichus*, noted on ant hills, were components of the grassland community.

The survey of Conistone Old Pasture SSSI (Lea Green) was limited to a small area east of Bastow Wood, Here outcrops of limestone pavement were interspersed with locally dominant tufts of Blue Moor-grass. Of particular beauty were the bright yellow splashes of colour on tufts of Mountain Pansy. There will be more to come, as Common Rock-rose *Helianthemum nummularium* and Bird's-foot-trefoil *Lotus corniculatus* were only just starting to flower. Bugle *Ajuga reptans*, Crosswort, Great Burnet *Sanguisorba officinalis* added to the wild flower mix. There were a few spikes of Early Purple Orchid *Orchis mascula* and a single area of Spring Sandwort *Minuartia verna* Alpine Tormential *Potentilla crantzii* added to the delights. Both Ash and Hawthorn were scarce on the cattle-grazed Upper Calmerian grassland.



Nosterfield NR (VC65) 6 July 2013
(NGR Centrum SE278795)

INTRODUCTION (Terry Whitaker)

Nosterfield Nature Reserve lies close to the River Ure and is a former sand and gravel quarry, over Magnesian Limestone. It was Hambleton District's first LNR, designated in 2001, and started to draw birdwatchers by the early 1980s, as quarrying reached the water table and began to attract birds. In total the reserve is a little over 60ha managed by the Lower Ure Conservation Trust. It is predominantly grazed grassland bounded by extensive large hedges and adjoining two significant permanent water bodies and two smaller former silt lagoons. It is now generally recognised as North Yorkshire's premier wetland grassland site for birds, managed mainly for breeding and wintering waders and waterfowl. In total over 225 full bird species have been recorded. However it also has many uncommon invertebrates associated with a wide variety of limnological habitats.

The grazed areas are principally managed with breeding Redshank in mind and as this species dislikes the presence of livestock, they are largely ungrazed until after a hay crop is removed in mid-July. The taking of haylage for over ten years has assisted in nutrient reduction and extensive stands of Yellow-rattle *Rhinathus minor* have become established, together with an increasing botanical diversity.

Botanically the site is probably most notable for its draw-down zone species, such as Mudwort *Limosella aquatica* and those thriving on thinner gravelly soils, such as Blue Fleabane *Erigeron acris* (see Plate VII, centre pages). However, the wider species-rich grasslands are well established, with impressive drifts of eyebrights and Bird's-foot-trefoil. The site now also supports seven species of orchids.

The first warm weather of what was to prove to be a good summer had arrived and the calm and relatively warm overnight temperatures rewarded the moth-trappers. The Saturday dawned clear and soon became very hot. Whilst the moth group emptied their traps (it took over 5 hours), other YNU groups fanned out over the extensive reserve, largely ignoring the birds (including breeding Avocets) but looking at the botany and sampling the ponds. A malaise trap yielded a huge catch of a variety of insect groups for later examination.

Tea and home made cakes were served at the reserve interpretation building where the group retreated from the heat and the reports meeting started.

Thanks to the Lower Ure Conservation Trust and especially Simon and Jill Warwick for making this visit so successful.

BIRDS (Steve Worwood)

A hot sunny day produced little evidence of early return passage except for a Yellow Wagtail flying over and calling. Of the 65 species recorded for the day most were residents of the reserve or the immediate area. Evidence of breeding success was found with broods of ten young Gadwall and a similar number of Shoveler; the Tufted Duck brood of seven small young was the first for the year on the reserve. Two young Curlew of about ten to twelve days old, feeding close below the main hide attracted the attention of many observers. Sitting Ringed and Little Ringed Plovers were found on the shingle Islands along with a late pair of Avocets with four young about four days old on the North Lake. Of the ten Redshank located most were just-fledged juveniles. Four Grey Heron were catching sticklebacks in the shallows of the reserve lakes. Breeding warblers, including Sedge Warbler, Whitethroat, Blackcap, Willow Warbler and Chiffchaff were located in the hedges and scrub around the edge of the reserve. Two Marsh Tits were in the same area and a Reed Bunting was issuing its plaintive song from the Silt Lagoon scrub. Two Common Buzzards were thermalling over the West Ridge, but the bird highlight of an enjoyable day was a Hobby flying east over the Silt Lagoons in the afternoon.

MOLLUSCS (Adrian Norris)

Terry Whitaker, John Newbould and AN visited the Nosterfield Quarry Nature Reserve in SE2789, to the north of the main reserve, and recorded only six waste ground species as the day was very dry and hot.

Work on the Molluscan Fauna of Nosterfield Nature Reserve was undertaken by Dr Terry Crawford (TJC), David Lindley (DL) and AN in both SE2879 and SE2779, which includes most of the lakes. A survey of the water bodies produced a small number of records including the rare Smooth Ramshorn *Gyraulus laevis* at SE277795. DL also found this at other sites within the reserve. 75 records of some 29 molluscs from SE2779 and 18 from SE2879, bring the total number for the reserve to 32 species.

On the day of the meeting Jill Warwick produced a small sample of slugs found within the reserve; two examples proved to be Durham Slug *Arion flagellus*, not previously found by us and adding to the reserve total.

INSECTS - Moths (Charles Fletcher)

The YNU lepidoptera group was invited to trap on the Friday night and a total of 11 MV traps was set up in a variety of habitats (see Plate VII, centre pages). The night was warm and promising and when the traps were opened on the sunny Saturday morning a total of 151 species was logged including 17 new to the reserve. *Elachista luticomella* and *Epinotia rubiginosana* were both new for VC65 whilst *Elachista triatomea* was the first record in VC65 since Porritt's lists. Larvae of the two *Elachista* species feed on various grasses whilst

the *E. rubiginosana* must have strayed from some nearby Scots Pine *Pins sylvestris*. A good variety of micromoths included *Coleophora discordella*, *Acleris bergmanniana*, *Epinotia abbreviana* and *Teleiodes vulgella*, all new for the reserve. Amongst the macrolepidoptera, new species for Nosterfield included Puss Moth *Cerura vinula* and Currant Pug *Eupithecia assimidata*. Species typical of open grassy areas, such as Heart and Club *Agrotis clavis*, Shoulder-striped Wainscot *Mythimna comma* and Brown-line Bright-eye *M. conigera* were present in good numbers. Other notable species included Sallow Kitten *Furcula furcula* and Small Clouded Brindle *Apamea unanimitis*.

Several more species were found during Saturday. *Dichrorampha aeratana* was swept from Ox-eye Daisy *Leucanthemum vulgare* and this proved to be another new species for VC65. A larva of Dusky Sallow *Eremobia ochroleuca* was swept from grasses and a single Narrow-bordered Five-spot Burnet *Zygaena lonicerae* was the first for the year for most observers.

INSECTS - Parasitic Hymenoptera (Bill Ely)

Light traps operated overnight caught some ichneumons and others were collected by WAE and Jonny Fisk. 10 of the ichneumons are additions to the reserve list, with the total now 33 species. Five of them are new to VC65: the cryptine *Aritranis director* collected at the Field Centre by JF, the pimpline *Scambus signatus* and the ichneumonine *Stenichneumon culinator* collected at Henge Hedge by WAE and the tryphonine *Tryphon (Symboethus) bidentatus* and the campoplegine *Diadegma erucator* collected at Keith's Field by WAE.

INSECTS - Odonata (Steve Worwood)

The hot sunny weather was excellent for the appearance of Odonata, and reasonable numbers were seen of typical species for the time of year. In excess of 30 Four-spotted Chasers *Libellula quadrimaculata* were hunting over the reserve's water bodies, with eight freshly emerged Black-tailed Skimmers *Orthetrum cancellatum*. Seven male Emperor Dragonflies *Anax imperator* were also defending territorial stretches of lake shore. Of their smaller brethren, more than 100 Common Blue Damselflies *Enallagma cyathigerum* were out over the lakes and vegetation together with a smaller number of Blue-tailed Damselflies *Ischnura elegans*. A lone Banded Demoiselle *Calopteryx splendens* was also reported.

PLANT GALLS (John Newbould)

On a previous visit in 2012 to the Lower Ure and Swale Conservation Trust reserve at Nosterfield LNR 29 species of plant gall were recorded. So it was decided to survey towards Thornborough Henges and the East Tanfield area. This resulted in a further 16 gall records, mainly found in the hedges along a public bridleway. In the afternoon session, the visit to Nosterfield Quarry resulted in a further 11 records.

Of particular note was the fungal gall *Puccinia coronata* on Purging Buckthorn *Rhamnus catharticus* from Nosterfield LNR and the midge gall *Harmandiola pustulans* on Aspen *Populus tremula* from the west side of Nosterfield Quarry. On the track to East Tanfield it was a pleasure to see the gall *Andricus curvator* on Pedunculate Oak *Quercus robur*. During

the walk to the Henges it was a surprise to record the aphid gall *Eriosoma patchiae* and the mite gall *Aceria campestricola* on Wych Elm *Ulmus glabra*, not a single gall having been recorded on elm in Swaledale during the time spent there earlier in the week.

A visit later in the season would doubtless add more records to squares SE2779, SE2879 and SE2780.

FLOWERING PLANTS (Don Grant)

This worked-out gravel pit contains many types of rock including Magnesian Limestone, which allows lime-loving plants to flourish in certain areas. The site has several orchids, most notably the Northern Marsh Orchid *Dactylorhiza purpurella*.

The reserve publishes a comprehensive list of plants found and in this meeting we were able to add four new ones to it: Spiked Sedge *Carex spicata*, a rare species of grassy places; the Elm-leaved Bramble *Rubus ulmifolius*, a species from Southern England that uses the Magnesian Limestone to reach into Yorkshire; and also *R. warrenii* and *R. echinatosides*.

APPENDIX - Thornborough Henges (John Newbould)

The Union last visited this area in May 1972. With a small group desiring to see the Thornborough Henges and the old quarry, we initially walked down a green lane lined with old hedges, which had been spared quarrying, with many Pedunculate Oak *Quercus robur*, Hawthorn *Crataegus monogyna*, old coppice Ash *Fraxinus excelsior* stools together with Blackthorn *Prunus spinosa* and an occasional Wych Elm *Ulmus glabra* and Field Maple *Acer campestre*.

The old quarry area was dry grassland in a bowl some 2 metres deep down shallow banks. There was evidence of sandy soils with Common Storksbill *Erodium cicutarium* but also of an underlying calcareous influence with Dropwort *Filipendula vulgaris*, two spikes of Bee Orchid *Ophrys apifera*, Mouse-ear-hawkweed *Pilosella officinarum*, a large area of Glaucous Sedge *Carex flacca* and Salad Burnet *Poterium sanguisorba*. There was a distinct impression that the area had been altered in the past but is currently naturally returning to calcareous grassland.

We were unable to visit the Henges as the landowner had treated the area with chemicals to deter Rabbits and Moles from further damaging these very old and important historical monuments. However, a nearby public right of way produced 20 grassland and hedgerow molluscs, including Common Whorl Snail *Vertigo pygmaea* and Excentric Glass Snail *Vallonia excentrica*. In the afternoon the group split up with David Lindley firstly re-examining the freshwater snails we noted as part of our original survey and then moving on to examine the churchyard in the village of Well (SE2780) where he recorded 15 species.



**Danes Dyke, Flamborough (VC61) 20 July 2013
(NGR Centrum TA215694)**

INTRODUCTION (Sarah White)

This Excursion coincided with a heatwave, but thankfully the coast enjoyed a cool cloudy day making very comfortable conditions for recording. The Excursion started early with a group from the Marine and Coastal section gathering at 8.30am to survey the beach at Low Tide, while the rest of the group, totalling 11 members representing nine affiliated societies, had a rather more leisurely start. Entomological highlights were a stiltbug *Metatropis rufescens* and a parasitic wasp new to the vice county while the botanists' finds of the day were Bristle Club-rush *Isolepis setacea* and Oval Sedge *Carex leporina* which were both new hectad records. A somewhat surprising sight was a Ringlet butterfly mating with a Meadow Brown. The tea and meeting were held adjacent to the café, thanks to Val at Thornwick Bay Café. East Riding Council, who owns the reserve, were also thanked for their help with the visit and congratulated on their reserve management. We were particularly pleased to note that there was a lot of dead wood in the woodland area, as well as well-maintained paths; it was felt there would be benefit in extending the area of short turf on the cliff-top, if this was possible.

MAMMALS (Sarah White)

A dead Common Shrew was found and molehills were noted.

BIRDS (Ken White)

This is inevitably a quiet time of year for birds but the mix of habitats including woodland, cliff and shore gave a respectable list of 31 species. In the woodland Robin, Song Thrush, Blackbird, Blackcap, Wren, Woodpigeon, Stock Dove and Chiffchaff were still singing and breeding was confirmed for Robin, Blue Tit, Wren and Carrion Crow. On the cliff top Meadow Pipit, Whitethroat, Linnet and Bullfinch were seen and Yellowhammers were feeding young. Birds on the shore and flying around the cliffs included Kittiwake, Fulmar and Oystercatcher.

INSECTS - Butterflies and Moths (Paul Simmons)

The cloudy conditions were unfavourable for the appearance of butterflies, but a number of species were sighted. Of particular note were the large numbers of Small Skippers feeding on Knapweed *Centaurea nigra* between the cliff-top path and the golf course (see Plate VI, centre pages). Large Skipper, Red Admiral, Small Tortoiseshell, Meadow Brown, Speckled Wood, Gatekeeper and Ringlet were also seen, though in small numbers.

There was a greater variety of day-flying moths. Macros included Narrow-bordered 5-spot Burnet, Latticed Heath, Silver Y and Barred Straw, as well as a Cinnabar larva. A good number of micromoths were also visible. These included the grass moths *Agriphila straminella* and *Crambus perlella* in good numbers, *Udea lutealis*, *Pseudargyrotoza conwagana*, Timothy Tortrix *Aphelia paleana*, Yarrow Plume *Gillmeria pallidactyla*, Nettle-tap *Anthophila fabriciana*, and the Horse-chestnut Leaf-miner *Cameraria ohridella*.

INSECTS - Parasitic Hymenoptera (Bill Ely)

Seventeen ichneumons, one parasitic cynipoid and two proctotrupoids were collected. The diapiiid *Aneurhynchus nodicornis* is new to VC61, the eighth Yorkshire site (tenth record). The orthocentrine ichneumon *Plectiscidea canaliculata* is the fifth Yorkshire record and the previous one for VC61 was at the same site in 2011. There are two previous records of the ichneumon *Oxytorus luridator* in VC61 and both are in the York area at the western end of the vice-county. The ichneumonine *Homotherus varipes* and the diapiiid *Aneurhynchus galesiformis* are both second VC61 records. The ichneumon totals for both squares covered by this site have now reached 20.

INSECTS - Hemiptera (Bill Ely)

The stiltbug *Metatropis rufescens* is new to VC61 and is associated with Enchanter's-nightshade, on which it was found at this site. It was first found in Yorkshire in VC63 in 2010 and is now known from several woods there. This is the first Yorkshire record outside VC63.

FLOWERING PLANTS (Richard Middleton)

The botanists focused their attention on the monad TA2169, which contains the grounds of the now-demolished Danes Dyke House, straying only a hundred metres eastwards to Hartendale Outfall. Although the site has been reasonably well visited in the past, it was useful to be able to make a concentrated recording effort, which was rewarded with a list of over 170 taxa. The deep wooded ravine showed evidence of a long-established woodland cover with Primrose *Primula vulgaris*, Enchanter's-nightshade *Circaea lutetiana*, Salad Burnet *Poterium sanguisorba*, Sanicle *Sanicula europaea*, Ramsons *Allium ursinum*, Bluebell *Hyacinthoides non-scripta*, Wood-sedge *Carex sylvatica* and Wood Millet *Milium effusum*. This lower end of Danes Dyke was richly furnished with ferns including abundant well grown clumps of Hart's-tongue *Asplenium scolopendrium*, a plant more commonly encountered in the vice-county as stunted growths on urban walls. However, some caution may be needed in the interpretation of the ferns as there may have been deliberate introductions made in the 1870s when the area was landscaped and planted with exotic trees. The Hard Shield-fern *Polystichum aculeatum*, which has one of its few VC61 stations here is almost certainly native, also occurring nearby at South Landing, but a magnificent tussock of the locally rare Scaly Male-fern *Dryopteris affinis* agg. is more problematical. Other relics of this planting period probably include Welsh Poppy *Meconopsis cambrica* and Londonpride *Saxifraga x urbium*.

There is chalky element to the flora, as would be expected, but this was found to be now largely restricted to the cliff faces, edges and their gullies. Here Kidney Vetch *Anthyllis vulneraria*, Greater Knapweed *Centaurea scabiosa*, Field Scabious *Knautia arvensis*, Carrot *Daucus carota*, Carline Thistle *Carlina vulgaris*, Lady's Bedstraw *Galium verum*, and Harebell *Campanula rotundifolia* were found. The wetter areas on the cliff face also contained Hemp-agrimony *Eupatorium cannabinum* but a strong sea influence was reflected by the presence of Buck's-horn Plantain *Plantago coronopus* and Sea Plantain *Plantago maritima*.

The intensive arable cultivation of the glacial soils on the chalk plateau has, over the last decade or more, been relaxed, with much land to the west of the Dyke now providing a rank, grassy rough to the new golf course. This was found to support a very restricted set of arable weeds although Hoary Ragwort *Senecio ericifolius* and Common Spotted Orchid *Dactylorhiza fuchsii* were of interest.

The picnic area to the north of the house site provided unexpected botanical bonus as an area of damp neutral grassland. The grassy bank on the east side contained Lesser Stitchwort *Stellaria graminea* and Marsh-bedstraw *Galium palustre* with Marsh Foxtail *Alopecurus geniculatus*, Bristle Club-rush *Isolepis setacea* and Oval Sedge *Carex leporina* in the adjoining grass, the latter two being new hectad records.



May Moss & Langdale Forest (VC62) 10 August 2013 (NGR Centrum SE856969 - Meeting Point only)

INTRODUCTION (Adrian Norris)

The meeting began quite unexpectedly and eventfully: firstly Mick Carroll, the leader of the group, was reported as being ill and unavailable; next, the officers at the gate stated that they did not know about the meeting and were reluctant to let us through, particularly because of an incident in the woodland. By the time the meeting should have been underway, the whole waiting area was full of cars awaiting access. Contact through the military police on site eventually allowed us access, but with a warning that a phosphorus bomb had been located and the bomb squad and a local fire engine were on site. A long trail of cars set off across the area, stopping for a short time close to the fence surrounding the facility. After a short talk about the site and what was happening, we were allowed to sign in: 29 people in 22 cars.. We moved *en masse* into the forest, stopping by the side of a track opposite May Moss. It was at this point that the fire engine, complete with the bomb squad appeared. The track was far too narrow for the vehicles to pass, which resulted in over 20 cars having to reverse back down the track and allow the vehicles to pull into a passing place, so that the entire convoy could then move through. This whole process took quite a time and restricted the time available to us in this part of the woodland. It turned out that the fire department and the bomb squad had dealt with three phosphorus bombs.

The hot and dry weather also resulted in some members leaving early as the water levels in the bog, one of the main reasons for visiting, proved far too low.

BIRDS (Ian Glaves)

Overall, bird activity was quiet, due to the post-breeding dispersal, and the relative lateness in the day with observations starting after 10-30a.m. Around the Fylingdales compound there were several Barn Swallows feeding, as well as House Martin, Goldfinch, Linnet, Meadow Pipit and Wood Pigeon. On the forest road between May Moss and Hipperley Beck, a juvenile Grey Wagtail was seen (and one was picked up dead), as well as Mistle Thrush, Green Woodpecker and a pair of Goshawk. Carrion Crow, Common Buzzard, Common Swift and Blackbird were also reported. A prolonged stay in the Hipperley Beck area produced parties of Chaffinch, Coal Tit and three Common Crossbills. Siskin was heard on several occasions, and seen once. Great Spotted Woodpecker was heard calling.

MOLLUSCS (Adrian Norris)

The Molluscan Section was represented by David Lindley, Terry Crawford, Alex Hart, a student from York University, and AN. A total of 64 records was made from eight 1km squares, mostly from the roadsides, the forest being too acid in most places to be very rich in molluscs. On the 9th of July Terry made an additional visit and recorded 33 specimens from a separate eight 1km squares. In total the combined list produced 41 species.

Most of the records are typical of the fairly acid habitats available, and the long period of hot and dry weather made it difficult to find certain species. The sites surrounding the Fylingdales military site produced a number of the common Wrinkled Snail *Candidula intersecta*, associated with limestone grassland and introduced with the limestone rubble which makes up the roads surrounding the site. A few of the more local molluscs were located, including; *Cochlicopa lubricella*, *Columella aspera*, *Euconulua alderi* and Dwarf Snail *Punctum pygmaeum*. A single *Vertigo* was located which unfortunately proved to be the Common Whorl Snail *V. pygmaea*.

INSECTS - Butterflies and Moths (Peter Tannett)

A largely cloudy day with a somewhat cool breeze on exposed higher ground limited the activity of butterflies. The Peacock was present commonly in almost all areas. Single examples of the Small Tortoiseshell, Red Admiral, Painted Lady, Brimstone, Small Copper and Common Blue were noted. Meadow Brown, Ringlet, Small and Large Whites, Green-veined White were widespread and the Small Skipper was also present. Day flying moths seen were Silver Y, Antler Moth and Narrow-bordered 5-spot Burnet. Amongst some smaller Geometers were Shaded-broad Bar, Twin-spot Carpet and the July Highflyer. *Udea lutealis* was common.

INSECTS - Parasitic Hymenoptera (Bill Ely)

At May Moss I collected the pimpline ichneumon *Zatypota discolor*, which is an ectoparasitoid of spiders and is recorded from specimens of *Theridion*. When I was an

omnivorous collector in Rotherham I occasionally found immature spiders with small ichneumon larvae wrapped around their abdomens with their jaws buried in the host, but by then both host and parasitoid were dead. This ichneumon is recorded from heathland and is **new to Yorkshire**. The campoplegine *Cymodusa antennator* was also here and is the second Yorkshire record and the first for VC62. All of the Cremastinae are rare in Yorkshire and the specimens of *Cremastus geminus* that I found at May Moss are new to VC62. This is supposed to be coastal but the two previous Yorkshire records are much further inland than Fylingdales! The ichneumonine *Coelichneumon validus* from the roadside at May Moss is the 5th Yorkshire record, the first since 1950 and is also new to VC62.

Alexandra Hart (see the Conchology report) collected the cryptine ichneumon *Gambrus bipunctatus* at Allerston High Moor close by Blakey Topping. The history of this genus is confused, and not just in Yorkshire. Specimens that I collected in the 1980s were identified as *G. ornatus* using a translation of Kasparyan's Russian key. About 15 years ago it was decided that specimens named as *ornatus* were misidentifications of *G. bipunctatus* and that *ornatus* was a synonym of *G. incubitor*, so I transferred the Yorkshire records accordingly. A new key to British cryptines is currently in development by the Austrian entomologist Mark Schwartz using structural characters to supplement the colour ones which were the main features used by Kasparyan. From this it is clear that the earlier specimens are the re-instated *ornatus*, which means that Alexandra's specimen is **new to Yorkshire**.

Close by I found the anomaline ichneumon *Barylypa delictor*. The ichneumons in this subfamily have very elongate gasters (the apparent abdomens) instead of long ovipositors and the female inserts the whole gaster into the rolled leaves to reach the host caterpillars. There is one unconfirmed record from VC63 in the late C19th but this is the first confirmed Yorkshire record. The pimpline *Itopectis aterrima* was also at Allerston High Moor and is the second VC62 record and new to the NYMNP. The proctotrupid *Parthenocodrus elongatus* was also found here and is the fourth Yorkshire record and the second from VC62 – Harry Britten jnr recorded it at the nearby Hole of Horcum in 1937.

The banchine *Glypta longicauda* was further east in Langdale Forest at Barley Carr Rigg and is new to VC62, though it is quite frequent in the south of the county. The second VC62 record of the campoplegine *Diadegma majale* was here and is new to the NYMNP. The fifth Yorkshire record of the tersilochine *Epistathmus crassicornis* was also here and is the third for this part of the NYMNP, having been found previously at Bridestones and Forge Valley. It had not been recorded in Yorkshire for 25 years..

INSECTS - Coleoptera (Bill Ely)

The net-winged beetle *Pyropterus nigroruber* was collected at the roadside at May Moss. Bob Marsh reports that this is the fifth record for VC62 and all records are within the NYMNP, from Duncombe Park in the west to Hayburn Wyke in the east.

INSECTS - Diptera (Andrew Grayson)

The weather remained fair, but a persistent and moderately strong cool breeze caused Diptera to be concentrated in sheltered areas. I investigated three such areas near the periphery of May Moss: a moorland edge bordering a coniferous plantation at Wood Slack (SE870967); a boggy area dominated by sedges and mosses near Worm Sike (SE871968); and a sloped area of moorland and grassland around boggy gullies near Eller Beck (SE869978). Hoverflies were quite scarce, apart from the large *Sericomyia silentis*, which was present in all three areas. The most noteworthy hoverfly was *Xylota jakutorum* at Wood Slack. The fauna of parasitic flies included the conspicuous large species *Tachina grossa* and *Linnaemya vulpina* near Worm Sike and Eller Beck. These are both local in Yorkshire and typically occur at boggy moorland-edge habitats. The long-legged fly *Dolichopus rupestris* is widespread but local in boggy areas and was locally common near Worm Sike. The most significant find of the day was a male of the crane-fly *Tipula pabulina* near Eller Beck, this being an addition to the VC62 list.

PLANT GALLS (John Newbould & Tom Higginbottom)

We initially approached recording at this meeting with some trepidation, on a site dominated by moorland and blocks of coniferous forest. However, once on the forest roads we discovered a range of deciduous trees with herb-rich vegetation in the open grassy glades. During the day, we sampled eight 1km squares, making 42 records on 14 host plants with 26 gall causers.

At the first stop, in SE8794, our attention was drawn to red colouration on what we thought were leaves of Bilberry *Vaccinium myrtillus*. After looking through the FSC *British Plant Galls* key we were excited to discover the galls were caused by a micro-fungus. However, this made identification of the causer difficult. Specimens were sent to Dr Brian Spooner who identified *Exobasidium vaccinii* on Crowberry *Vaccinium vitis-idaea*. This was our only record of this species during the day and there are only a few records of it from Scotland on the NBN Gateway. At the same site, a young Pedunculate Oak *Quercus robur* had examples of the Common Spangle Galls *Neuroterus quercusbaccarum* and Silk-button Spangle Gall *N. numismalis* and also the quite scarce Striped Pea Gall *Cynips longiventris*. *Cynips* species have been rather uncommon in recent years.

FLOWERING PLANTS (Richard Middleton)

The first site visited by the botanists was at the head of Hipperley Beck, near Brecken Howe, where a stand of spruce within the surrounding pine forest had been clear-felled and the natural regeneration of vegetation could be observed. Here the re-establishment of the original mire was being actively encouraged by obstructing the forestry drainage channels with timber dams. Although there were the expected colonisers, including Rosebay Willowherb *Chamerion angustifolium* and Prickly Sow-thistle *Sonchus asper*, the abundance of Heath Groundsel *Senecio sylvaticus* was less expected. It was encouraging to see a vigorous development of a wet heath community including Common Cottongrass *Eriophorum angustifolium*, Hare's-tail Cottongrass *E. vaginatum* and Star Sedge *Carex*

echinata along with Heather *Calluna vulgaris* and Purple Moor-grass *Molinia caerulea*. The damper areas supported Cuckooflower *Cardamine pratensis*, Lesser Spearwort *Ranunculus flammula* and Marsh Violet *Viola palustris*. In the very wettest parts along the beck there were colonies of Marsh Pennywort *Hydrocotyle vulgaris* (complete with its rarely noticed flowers), Bog Pondweed *Potamogeton polygonifolius* and Water Horsetail *Equisetum fluviatile*.

The second focus of attention was 3km further south, at the junction of forest tracks near Bickley School House. Here the substrate was much more lime-rich and the ditches supported Common Butterwort *Pinguicula vulgaris*, Bog Asphodel *Narthecium ossifragum*, both Common Yellow Sedge *Carex demissa* and Long-stalked Yellow Sedge *C. lepidocarpa*, along with a variety of rushes *Juncus* spp. Among the grasses on the drier verges were False Brome *Brachypodium sylvaticum*, good stands of Wood Small-reed *Calamagrostis epigejos* and occasional plants of Heath-grass *Danthonia decumbens*. Three species of St John's-wort were recorded - Square-stalked *Hypericum tetrapterum*, Perforate *H. perforatum* and Slender *H. pulchrum*, and three species of Hawkbit – Autumn *Scorzonoides autumnalis*, Rough *Leontodon hispidus* and Lesser *L. saxatilis*.

Other notable plants seen on the forest verges during the course of the day were Wild Marjoram *Origanum vulgare*, including a white-flowered form, and Bifid Hemp-nettle *Galeopsis bifidus* which often passes undifferentiated from the Common Hemp-nettle *G. tetrahit*.

Note: The motif of an autumn leaf, used to separate the different reports, was drawn by the late Elizabeth Farningham.

YNU Notice: Recent deaths

Sadly, we have to report the deaths in recent months of four local naturalists. Helen Jackson was a former President of the Union who worked wholeheartedly on the selection of Nature Reserves for management by the Yorkshire Wildlife Trust. Les Magee, also a former President, was a naturalist of widest experience and a freshwater specialist par excellence. Douglas Richardson was an Other Arthropods specialist and a deeply committed microscopist. Derek Yalden, faunal specialist and author, had one of his latest papers, on the dispersal of crab apples by deer, published in this journal (*The Naturalist* **137**:165-168). An obituary of each of the above will appear in a future issue of this journal.

Calendar 2014

Items are shown up to August 2014, plus the AGM. Future issues will show the remaining events.

- | | | |
|-----|-------|---|
| Feb | 1 | Natural Sciences Forum. St Chad's Parish Hall, Leeds, 10.00am to 12.30pm |
| Mar | 9 | Lepidoptera Group Annual Meeting . Bramham Village Hall at 11:00. |
| | 15 | Entomological Section: Recorders' Reports, Conversazione, Wilberfoss Community Centre at 2:00. |
| | 22 | YNU Annual Conference, York (see p219) |
| Apr | 5 | Conchological Section Field Meeting Junction Canal VC63. Meet in car park by canal bridge on Top Lane SE 621126 at 10:30. |
| May | 3 | Bryology Section Field Meeting. VC64, Ingleborough. Meet in the old quarry at Storrs Common on the B6255 near Ingleton SD702733 at 10:00. (Note : if the weather is fine be prepared for an ascent to high ground on Ingleborough.) |
| | 6 | Training Day - <i>Basic Field Skills</i> for Leeds Univ. students. Leeds Discovery Centre 9:30 Contact Roger Key if you are willing to tutor a small group. |
| | 10 | Conchological Section and Freshwater Ecology Section joint Field Meeting. Leeds and Liverpool canal, East Marton. Meet by village green SD908509 at 10:30. |
| | 17 | VC62 Excursion Forge Valley near Scarborough. |
| | 17 | Marine and Coastal Section Robin Hood's Bay NZ953048 – MBA Shore Thing Survey. Meet at 10:30. |
| | 31 | Botany Section Field Meeting VC61, Millington (Wolds). Meet on the roadside SE839530, 10:30. |
| | 31 | Freshwater Ecology Section Meet Ribbleshead car park SD765792 at 10:30. |
| Jun | 7 | Botany Section Field Meeting VC64, Kippax. Meet in the car park SE405295 at 10:30. |
| | 14 | VC63 Excursion Thorpe Marsh YWT Reserve. |
| | 14,15 | Marine and Coastal Section Runswick Bay NZ817155. Meet at 10:00. |
| | 19-24 | Swaledale Survey. Contact: AdrianXNorris@aol.com or Johna72newbould@yahoo.co.uk |
| | 29 | Botany Section Field Meeting VC62, Kilburn. Meet in the small car park SE514805 at 10:30. |
| Jul | 12 | VC64 Excursion Austwick and Lawkland Moss SSSI. |
| | 13 | Marine and Coastal Section South Landing Flamborough TA230692 – MBA Shore Thing Survey. Meet at 10:00. |
| | 19 | VC65 Excursion Grinton based near the Scabba Wath Juniper scrub area. |
| | 26 | Botany Section Field Meeting VC63, Dunford Bridge. Meet in the TP Trail car park SE159023 at 10:30. |
| Aug | 9 | VC61 Excursion Skerne Wetlands . |
| Nov | 15 | AGM , Settle. Venue tbc. |

Yorkshire Naturalists' Union

c/o NEYEDC, St William College, 5 College Street, York YO1 7JF

Tel: 01904 641631 Email: membership@ynu.org.uk

Website: www.ynu.org.uk

Registered Charity No. 224018

The Naturalist

This publication is issued free to individual members of the Yorkshire Naturalists' Union and to Affiliated Societies. The Editorial Board of *The Naturalist* is currently:

J. Bowers, W. Ely, A. Henderson, A. Millard, P. Simmons, S. West

Notice to contributors

Contributors should indicate whether they wish their manuscripts to be subjected to anonymous peer review. All other manuscripts will be reviewed by the Editorial Board who at their discretion may send them to third parties for comment and advice.

Original articles should be submitted electronically as an MS Word document to Dr A. Millard at a.millard@leedsmet.ac.uk.

Please see *The Naturalist Guide to Consistency* on p77 of *The Naturalist* 1079 and please **avoid** the following:

- using tabs to tabulate information (please use MS Word table format or separate the column entries in a single row with commas and enter a paragraph mark at the end of the row).
- inserting any figures, graphs or plates into the text; indicate their proposed locations in the text and send as separate files.

Good quality, high resolution images are very welcome and should be sent as .jpg files, with a separate MS Word file containing the caption and name of the person to whom the image should be attributed.

If electronic submission is not possible, contributions should be sent to Dr. A. Millard, Woodland Villas, 86 Bachelor Lane, Horsforth, Leeds LS18 5NF (Tel. 0113 258 2482)

Contributors should ensure the accuracy of reference citations. The Editorial Board and Council accept no responsibility for opinions expressed by contributors.

Copy Dates:

April issue - **14 February**; August issue **14 June**; December issue **14 October**

© Yorkshire Naturalists' Union – 2013

Single copies may be made of single articles in this journal provided that due acknowledgement is made and the copies are for nonprofit making educational or private use. Copying of more than one article or multiple copying of a single article is forbidden unless special permission has been obtained from the Yorkshire Naturalists' Union. Permission is granted for the use of brief quotations in published work provided that acknowledgement of the source is clearly stated but the use of substantial sections of text and any illustrative matter requires the express permission of the Yorkshire Naturalists' Union.

ISSN 0028-0771



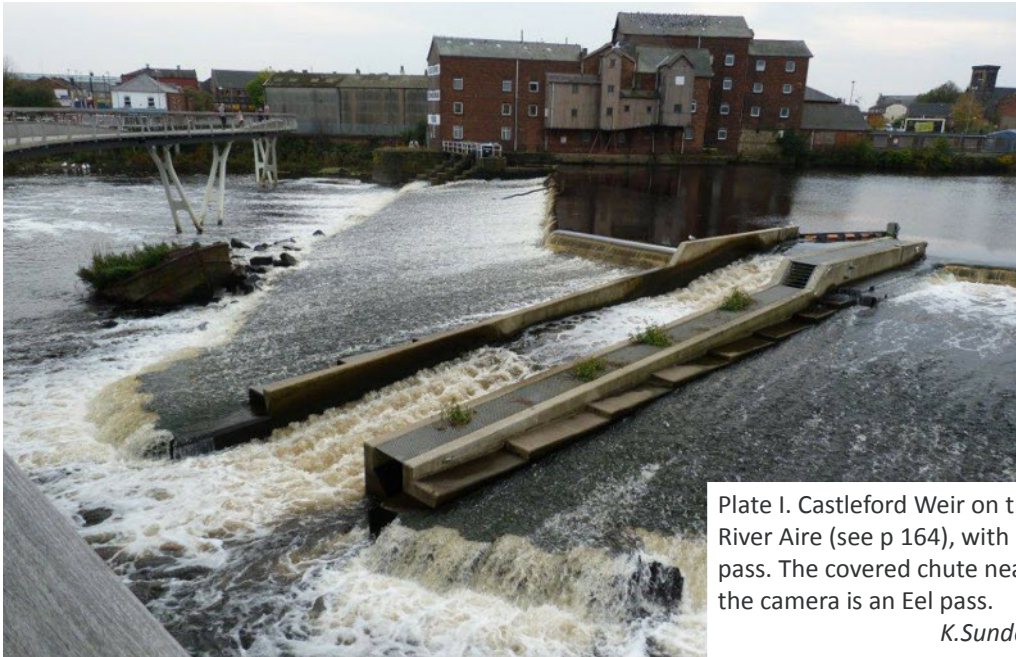


Plate I. Castleford Weir on the River Aire (see p 164), with its fish pass. The covered chute nearest the camera is an Eel pass.

K.Sunderland

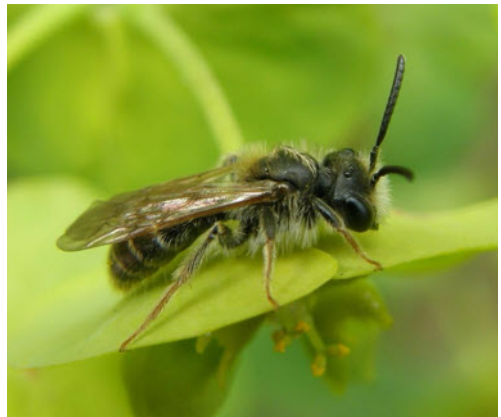


Plate II. Solitary bees which have shown changes in their Yorkshire abundance (see p189).

Above left : *Andrena humilis* female

Jeremy Early

Above right: *Andrena chrysosceles* male

Steven Falk



Plate III.

Heath Snail *Helicella itala* at Holm Dale showing its distinctive shell shape (see p207).

David Lindley



Plate IV. Activities at Ox Close Wood (see p212).

Top left : A working session. *Above*: Testing the home-made coracle.

Right: Charcoal-burning in progress.

Melanie Smith



Plate V. Rare plants at Ox Close Wood (see p212).

Left : Herb Paris *Paris quadrifolia* *Right*: Yellow Star-of-Bethlehem *Gagea lutea*. Margaret Moseley



Plate VI. YNU Excursions to Cromwell Bottom VC63 (see p221) and Danes Dyke, Flamborough VC61 (see p233).

Above: David Lindley (left) at Cromwell Bottom talking to YNU members and local naturalists.

Right: Yellow Bird's-nest *Monotropa hypopitys*, found in flower on a follow-up visit.



Below: Flamborough Head from above the south end of the Dyke.

Bottom: Insects found on the VC61 Excursion included the stiltbug *Metatropis rufescens* (new to VC61) and Small Skippers feeding on Knapweed *Centaurea nigra*.
Joyce & Paul Simmons





Plate VII. YNU Excursion to Nosterfield VC65 (see p229).

Top: Orchids *Dactylorhiza* sp. growing in profusion.

Above left: The lepidoptera group recording and releasing the 151 species of moths found in their traps.

Above right: Great Horsetail *Equisetum telmateia* growing with Wood Crane's-bill *Geranium sylvaticum*.

Right: Blue Fleabane *Erigeron acer*. Terry Whitaker

