

The *Naturalist*

April 2014
Volume 139
Number 1085



Journal of Natural History for the North of England

The Naturalist

Vol. 139 No. 1085 April 2014

Contents	Page
Editorial	1
What can natural history societies achieve? YNU Presidential Address J.A.Newbould	2
Additions and corrections to the Yorkshire Diptera list (part 5) Andrew Grayson	14
Woodland in the Yorkshire Dales: A Case Study Michael Pearson	23
A provisional vascular plant red data list for VC63 (S.W. Yorkshire) Field recording guidelines and field excursions - 2014 G.T.D. Wilmore	31
The lichens of Lawnswood Cemetery, north Leeds Mark R. D. Seaward	35
Recording in VC65 July 2013 John Newbould, Adrian Norris and Bill Ely	38
Yorkshire Juniper scrub <i>Juniperus communis</i> ssp. <i>communis</i> - a re-appraisal in the face of a new threat* Terry Whitaker and John Newbould	46
Plant galls in Swaledale John Newbould and Tom Higginbottom	57
Progress with the study of <i>Rubus fuscus</i> and the <i>Rubus fruticosus</i> aggregate in Swaledale and neighbouring districts David Earl	59
A Review of the Molluscs collected on field trips to VC65 between 2009 and 2013 Adrian Norris	61
Hudswell Wood, Richmond, North Yorkshire John Newbould, Adrian Norris and Seb Mankelow	63
Helen Kirk BEM Colin A. Howes	68
Obituary: Douglas Turnbull Richardson	70
YNU Excursions 2014	72
YNU Calendar 2014	80

YNU Notice: Union publications p22

Book reviews: p37, 69

An asterisk* indicates a peer-reviewed paper

Front cover: Purple Milk-vetch *Astragalus danicus* (see p33 and Plate II, centre pages). Photo: *J.Simmons*

Back cover: Fungus-induced gall *Gymnosporangium cornutum* on Rowan. This is a northern species which has Juniper as its alternative host (see p58). Photo: *J.Newbould*



The Naturalist

April 2014 Volume 139 Number 1085

Editorial

This issue carries several articles about the natural history of the northwestern part of Yorkshire with an emphasis on Swaledale. The main reason for the visits organised by our immediate past President and carried out in 2009 and 2013 were that the valley's wildlife has not been well recorded in the past and the reports here help to address that. Further visits are planned for the coming year and **you** are invited to join us for one or more days but it really helps to know if you will attend as we try to fill cars to save on petrol. There is no mobile phone in the Upper Dale but it is available at Marske and in the Richmond area, so you are asked to contact Johna72newbould@yahoo.co.uk before the week begins and he will email full programme details with locations of possible accommodation. Grid references for the meeting places are on the 2014 membership card.

The programme of events is as follows:

- Thursday 19 June Marske, where Cat Bank Road meets Marske Beck north of Marske Hall.
- Friday 20 June Hag Wood and Hudswell Wood National Trust properties, Richmond.
- Saturday 21 June Arkengarthdale for Calaminarian grassland with Moonwort then across moorland to Healaugh.
- Sunday 22 June Gunnerside on the bridleway to Ivelet to look for Small White Orchid on wet pastures.
- Monday 23 June Muker for floristically diverse hay meadows.
- Tuesday 24 June location to be arranged.
- Wednesday 25 June Brompton-on-Swale by Brompton Bridge for the lower Swale Valley east of the A1.

Natural England's Yorkshire Dales Team warns us that the disease *Phytophthora austrocedrae*, which is fatal to Juniper, has been found at several sites in Swaledale and the team now has a duty to discourage access to Juniper in the dale. Plant material should not be taken from infected sites in case of the small risks of spreading the disease. For anybody

with an interest in horticulture they also recommend disinfecting any footwear or gloves before approaching ornamental conifers in the garden as *Phytophthora* has been found in species of cedar and cypress as well.

Terry Whitaker, our President this year, writes “please respect this request from Natural England with regard to Juniper. We have learned that not only are sites in the Dales affected but also in County Durham and Cumbria, including a number of National Trust sites in the Lake District.”

What can natural history societies achieve?

The Presidential Address delivered following the Annual General Meeting at the Palm Court Hotel, Scarborough on 16th November 2013

John A. Newbould

Stonecroft, 3 Brookmead Close, Sutton Poyntz, Weymouth DT3 6RS
e-mail: Johna72newbould@yahoo.co.uk

“Imagination is more important than knowledge. For knowledge is limited to all we know and understand, while imagination embraces the entire world and all there ever will be to know and understand.”

Albert Einstein

Introduction

There have been a considerable number of developments in the way that we record nature, the place of nature in town and country, and the statutory protection of some species and habitats since the YNU was founded in 1861. At the National Biodiversity Network (NBN) Trust conference held at the Royal Society on 15 November 2013, we learned that the European Habitats Directive protects 89 species and 77 habitats for which Britain has international responsibility. Do we know what we need to know to support these designations? What is the evidence? Is it accessible? Is it open and transparent? (E. Mackey, Scottish Natural Heritage presentation). This paper looks at the contribution to our knowledge base made by Yorkshire's naturalists, some born and bred in the county, others with tenures at our major educational institutions.

Despite a poorly performing economy in 2013, there may be some room for optimism regarding wildlife recording. During 2013 the Whitby Naturalists' Club and the British Ecological Society (BES) celebrated their centenaries; the Institute of Ecologists and Environmental Managers received a Royal Charter giving formal recognition of the role of ecologists in our society and the Field Studies Council (FSC) celebrated its 70th anniversary with a major project known as Biodiversity Fellows, providing training in the less well-

known and underworked biological groups. The National Federation for Biological Recording (NFBR) has changed its name to the National Forum for Biological Recording and has become a registered charity. The YNU has, I believe, had a representative on the NFBR Council since its inception in 1986. In 2012 we celebrated the 50 years since the world's first plant atlas was produced (Preston, 2013) and in 2014 the Biological Records Centre founded at Monks Wood will celebrate its half-centenary.

This optimism is tempered, however, by significant cuts in the budget of the Department of Environment, Food and Rural Affairs (DEFRA), resulting in reduced funding for biological recording. It is critical for the maintenance of funding that amateur naturalists transfer data electronically to a local record centre, a national recording scheme or otherwise onto the NBN Gateway, especially for less well-worked groups. Data that are unused are lost. JNCC's finances have been described as between a rock and a hard place, which will result in some monitoring programmes facing funding cuts though the new priorities of pollination and alien species may benefit from increased funding.

Influences on my own practice

My own overall aims are to help people to appreciate nature and to use modern electronic techniques to record a species accurately - its identity and the location and date of the observation - and to clarify the contributions made by Yorkshire botanists in the development of species atlases and habitat classification. A typical instance occurred when I visited Edinburgh in September 2012 for the Botanical Society of the British Isles (BSBI) conference celebrating the fiftieth anniversary of the publication of the first-ever national atlas of species distribution (Braithwaite and Walker, 2013). I stayed with a university friend and we walked to Cramond Island on the southeast shore of the Firth of Forth. Here he spotted a butterfly on Ragwort *Senecio jacobea* and asked what type it was. I told him it was a Peacock *Inachis io* and showed him the inexpensive FSC chart which would have allowed him to make his own identification. Despite living in the country near the Muirshields Country Park for 25 years, he admitted the only butterfly he knew was a Red Admiral *Vanessa atalanta*. I later showed him how the distribution of plants and animals in the country could be seen on the NBN Gateway. It is vitally important that we be ambassadors for wildlife and biodiversity as, while most people are only vaguely interested, others would really like to learn.

My own interest in recording began aged 10-11 at primary school when the late John Vaughan enthused his class to bring wildflowers to school, preferably identified, and awarded a gold star for the first record, silver for the second, *etc.* My interest waned in my teenage years but I started to holiday on the Norfolk Broads in my early twenties. Exploration of this region, coupled with my subsequent marriage to Liz, whose brother Richard Comley was interested in wild flowers, renewed in me what was to become a lifetime passion for natural history. Regular trips to Norfolk coupled with local interpretation inspired me to read Ted Ellis' New Naturalist volume *The Broads* (1965) containing Dr Joyce Lambert's account of the formation of the Broads. She described the process of transition

from open water to fen, then willow carr and subsequently oak woodland. This book, coupled with the subsequent publication *The Land Use, Ecology and Conservation of Broadland* by Dr Martin George (1992), who headed the Norwich office of the Nature Conservancy Council (NCC) in the 1970-80s, extended my thinking from not just what is seen but why. The understanding so gained assisted me later when formulating management plans for Denaby Ings Nature Reserve and Laughton Pool within the Roche Abbey woodlands SSSI, where infilling of the water bodies is a problem.

Subsequently, recording and mapping the different vegetation communities at the Maltby Low Common Nature Reserve and publications such as *Plantatt* by Hill *et al.* (2004) and occasional exposure to the work of Sheffield University's NERC Grassland Ecology Unit (Grime *et al.*, 2007) intensified my interest.

A Note on Landscape History

Before discussing vegetation analysis more fully, I would like to say something of another relevant interest of mine which came to the fore shortly after I moved to Dorset. In 1999 I was invited to join the Dorset County Boundary Study, where much time is devoted to establishing whether coppice stools present today are at the locations mentioned in Saxon charters. I also took up a suggestion from Martin Papworth (South-west Region Archaeologist for the National Trust) to survey the historic hedgerows of the National Trust's Golden Cap Estate (Newbould, 2005). This study introduced me to the history of landscape and the countryside (Rackham, 2003), important areas for local study and evaluation; I have visited places in Yorkshire such as Ruswarp, Wykham, Back Lane at Hooton Roberts, Fishlake and Appletreewick (where old Ash *Fraxinus excelsior* marked an historic routeway), which would provide material for similar study.

I was asked to provide a list of notable trees for the Golden Cap Estate during 2013. I provided a list of some 80 large coppice stools and significant pollard and maiden trees from the hedgerow surveys undertaken earlier using the standard DEFRA model (Hill *et al.*, 2005) of 30m samples. However, many more could be seen from the office window! I arranged with staff to survey the 1km square adjacent to the office on a field boundary basis and added another 120 significant coppice stools, mainly of Maple *Acer campestre*, Holly *Ilex aquifolia* and Ash, together with maiden and pollard oak and Ash. Significantly, many of these trees were located on parish boundaries and on the old Roman road from Dorchester to Exeter (see Plate I, centre pages). (Preliminary maps of this ancient landscape were exhibited at the AGM.)

It is to the County Archives that a natural historian should turn to discover the early vegetation maps of a parish. Occasionally an estate map will be found showing meadows, woodland, ponds, orchards, etc. Better are the series of parish Tithe Maps from 1830-40, showing arable, meadow, pasture, willow, furze, orchards and ponds. With both orchards and ponds being Biodiversity Priority Habitats, a local society is in a position to research such features as are present today and, with the owner's permission, conduct a survey.

Also in an historical context, L. Dudley Stamp organised a land use survey of England using the 6-inch Ordnance Survey series maps, mainly dated 1929 but some from the 1902 series. The work done by primary schools is historically important and most of the maps were archived by Imperial College. Dr Ruth Swetman reported to the NFBR 2006 Conference that she had used both the Tithe Maps and the Dudley Stamp series, together with modern NVC phase 1 maps, to measure land use change over 160 years. She went to talk to the Women's Institute in the parish of Wisbech St Mary about these changes and discussion with members of various ages there helped to pinpoint the timing of the changes, which were mostly post-Second World War. Is this an exercise that local societies could usefully undertake?

Habitat/vegetation surveying and the YNU contribution

During the period 1991-2000 NCC and Cambridge University Press published five volumes on *British Plant Communities*, edited by John Rodwell with contributions from a small group of YNU members such as Geoffrey Wilmore, Jeff Lunn and Ian Rotherham. Such a mammoth task was not started from scratch but built upon the conceptions of many naturalists, some with Yorkshire associations. Crucially, the vegetation communities were compiled by statistical analysis of standard quadrat data. The work was never completed.

Yorkshire has a long association with the scientific study of vegetation communities. F. Arnold Lees (1888) provided a list of plants and their locations in the traditional taxonomic order together with a major chapter on climatology and listed the altitudinal limits of individual plants. T.W. Woodhead of Huddersfield and W.H. Pearsall of Leeds University were editors of *The Naturalist* and YNU Presidents who also studied vegetation ecology. Woodhead delivered his Presidential address in Scarborough on 9 December 1922 whilst Pearsall spoke at Wakefield on 4 December 1937. Woodhead (1923) opened by commenting that "throughout its long history, it has been one of the chief aims of the Union to encourage the amateur in science..." and went on to say that Union members are drawn from every class and calling, including "Bankers, Butchers, Doctors, Dentists, Drapers, Civil Servants and Chemists, Professors and Museum Curators". Sadly, managements across the country are culling natural sciences curators. As with Woodhead, it is perhaps a sign of old age and, in my case, of long experience in managing the Union's membership that I should reminisce, take stock of past achievements and consider the future, lest the Union and *inter alia* natural history recording drift into an "unstable and adverse condition".

Reading through Presidential addresses from around ninety years ago has highlighted for me how the scientists of yesteryear were tackling problems that we today face with technology at our disposal that they could not imagine. Woodhead pays tribute to the contribution of the amateur naturalist, referring to the *Flora of the West Riding* by Miall & Carrington (1862) and to Miall's comment that "those who make foolish objections to systems of names as dry and unprofitable, may be reminded that the most valuable discoveries in science and generally in philosophy have been merely fresh combinations of facts known before". Is this relevant to arguments today about publishing lists in *The*

Naturalist?. Certainly, electronic lists in Microsoft Excel or other public databases make for easier data searching and analysis (Higginbottom & Newbould, 2014).

On 3 December 1904 a meeting was held at the house of Dr W.G. Smith in Leeds to discuss the position of vegetation surveying in Britain, which had been trialled in Perthshire by Robert Smith and in Yorkshire by W.G. Smith and his students starting in the 1890s (Sheal, 1988). Also present were C.E. Moss, A.G. Tansley and T.W. Woodhead. It was resolved to form a committee to advance the interests of botanical survey, to be called “The Central Committee for the Survey and Study of British Vegetation”. After some nine years with membership confined to just twelve people and a wide circle of botanists demanding membership, the BES was founded in April 1913 at a meeting held at University College, London. In anticipation, the first part of the *Journal of Ecology* was issued on 1 March 1913. Tansley specified two aims for the *Journal*:

- “to foster and promote in all ways the study of ecology in these islands
- to endeavour to present a record on the progress of ecology through the world” (Hutchins *et.al.*, 2012).

Whitby Naturalists’ Club is in very august company, being founded in the same month and year as the BES, now with a worldwide membership and which returned to its Yorkshire roots to hold its centenary symposium at the University of Sheffield in September 2011.

On a smaller canvas, our own natural history societies have been undertaking such studies and publishing them in *The Naturalist* for an even longer period. Much of the work on surveying British vegetation before 1913 was published in *New Phytologist* and *The Naturalist*, together with *Types of British Vegetation* (published by Cambridge University Press in 1911) which Tansley described as a preliminary work. Much of W.H. Pearsall’s work published in *The Naturalist* related to the vegetation of acid soils highly relevant to the large area of moorland and lowland heath in Yorkshire. In his Presidential address (Pearsall, 1938) he provided evidence of the “conditions of the soil or *edaphic* factors as the prime factors controlling the distribution of vegetation”.

A sign of the significant progress made in vegetation classification is that Woodhead’s (1924) *Introduction to Botany and Plant Ecology* (written for secondary school examinations) classified vegetation in what we today call the UK Broad Habitat types. Even during the Second World War the YNU had a Committee of Research under Professor Priestley with Chris Cheetham, its Secretary, reporting on the Ecology of a Heather Moor. (Cheetham, 1942). Albert Henderson commented recently that I am one of very few members who write on vegetation communities in YNU journals today and I urge our younger members to consider vegetation communities when writing reports.

Professor D.H. Valentine, in his Presidential Address delivered at Ilkley in 1960 (Valentine, 1961) also praised the influence of L.C. Miall from his schoolboy readings. In a wide-ranging address on the future of the British flora, Valentine reported how accurate assessment of the ecological preferences of plants enabled M.J. Harvey and himself to search for and find

new localities for the Teesdale Violet *Viola rupestris* on Arnside in Westmorland. It was previously only known from a southwest-facing limestone grassland slope on Widdybank Fell.

Mapping and survey systems

A mapping system was devised for the rapid mapping of wildlife habitats over large areas of the countryside in the late 1970s. The system was modified and extended following the passing of the Wildlife and Countryside Act (1981) for use on SSSIs (Anon, 1990). NCC made the early completion of nationwide surveys of biological features a priority objective (Anon, 1984) with the aim of identifying all the areas which qualify for wildlife protection and management. Surveyors in the East Riding were still working on this in 2011! Nowadays professionals use products such as *Mapinfo* to digitise such tasks. Scientists in local environmental records centres best do such mapping, especially of SSSIs and local sites of nature conservation importance (SINCs). There is a cost for providing such a service and, while most local authorities in Dorset appreciate the need for this service and contribute to the costs, few in North Yorkshire appreciate the need and others are not prepared to fund the relatively small sums required to provide the service, which could be a costly mistake in the event of litigation over an unsound planning decision.

Mapping species using the Ordnance Survey (OS) Grid.

I will now move back to 1950 when another future YNU President spoke at a conference organised by the BSBI (Walters, 1951). This important conference spent two days considering how to record plants and what should be recorded. Max Walters described in a general way “*the study of the distribution of higher plants, with particular reference to the British Flora*”. Walters paid tribute to the work of H.C. Watson in providing a durable mapping system for Britain some 100 years previously. It was based, with a small number of exceptions, on the 1852 political county boundaries in order to establish constant boundaries enabling comparative studies of the British flora and fauna (see Plate II, centre pages). Watson was born at Firbeck, Rotherham, on 9 May 1804 and was fittingly remembered in September 2013 when the Friends of Firbeck Hall unveiled a commemorative plaque to him as the “botanist who standardised the study and recording of plant distribution in Great Britain”. Not only was the system of Watsonian vice-counties of service in the production of distribution maps until the 1950s but it has also served as a sound basis for the YNU to organise annual Excursions in each vice county on a rotational basis. It provides for YNU members an excellent basis for studying and comparing the flora and fauna across England’s largest county. Nationally also it has been the basis of publication of many floras, other atlases and accounts of county fauna (Preston, 2013). In Yorkshire we can be proud that the last twenty-odd years have seen the publication of the *Flora of the East Riding* (Crackles, 1990), the *Plant Atlas of West Yorkshire* (Lavin & Wilmore, 1994), the *Plant Atlas of Mid-west Yorkshire* (Abbott, 2005) and the *Plant Atlas of South Yorkshire* (Wilmore, Lunn & Rodwell, 2011).

Walters also stated that it was considered amongst plant geographers at the time that climate was the primary factor controlling the distribution of plants (and therefore of many other species e.g., invertebrates). He also highlighted soil factors but in a subsidiary manner. This is not current thinking. Recent publications consider the chemical and physical characteristics of soil to be more important for optimum growth of both lower and higher plants (Grime *et al.*, 2007; Hill *et al.*, 2004, 2007; Rodwell, 1991-2000). There is much worldwide current research in the role of soil fungi and plant development. Natural England highlights the fragility of soil in many farmland ecosystems. Walters correctly pointed out that the great climatic and physiographic changes of the past have “left their mark on the present day distribution of organisms”. He also pointed out that the range of a species is subject to continuous variation. Members will recollect Professor Fitter’s demonstration of this in his 2011 conference address in relation to the Comma Butterfly *Polygonia c-album*.

Another famous Yorkshire botanist, Professor A.R. Clapham of the University of Sheffield, in the last talk at the same BSBI conference (see Fig. 1), proposed that an atlas be produced on

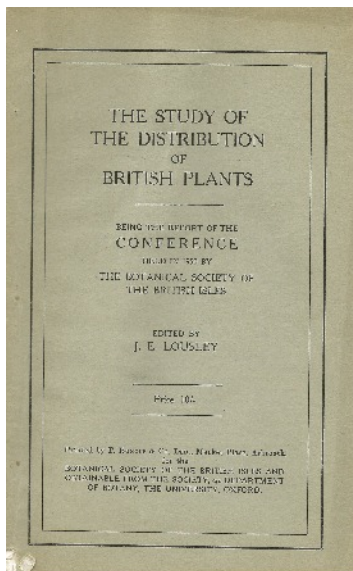


Figure 1. The front cover of the 1950 BSBI Conference Report containing the proposal that a national plant atlas should be produced.

the basis of reporting distribution by 10km square, given the adoption by OS of the metric 100km square mapping system (Clapham, 1951). He said that 10km squares “have great advantage as being considerably smaller than vice-counties and [they] can give much more precise information about distribution within the general range”. Walters and Clapham were not alone in their thinking. Professor Ronald Good of the University of Hull had attempted to dot-map various Dorset plants prior to the Second World War. After some debate BSBI agreed to the proposal to produce the atlas, obtained the necessary finance and appointed S.M. Walters as project director with Dr Franklyn Perring in day-to-day control. Within some eight years the mainly amateur botanical community had obtained sufficient data to produce the world’s first such atlas (Perring and Walters, 1962). There were, however, some gaps with SK49 (Rotherham, South Yorkshire) having just 206 species. Following the opening of a Biological Records Centre at Rotherham Museum in 1975 under Bill Ely, and with the help of Rotherham Naturalists’ Society and other local societies, the situation was rectified with over 1000 species historically listed on the NBN Gateway today.

The 10km square is the basis of most national recording scheme atlas projects today in the UK, allowing good statistical analysis of trends. The publication of the *BTO Bird Atlas* (Balmer *et al.*, 2013) is a testimony to hard work by many amateur naturalists across the UK, supported by a small team of professionals within BTO. It is well known that publication of such atlases produces a flurry of activity when gaps are perceived. Steve Cham highlighted

this problem at the 2013 NBN conference for both county and national levels during the production of the British Dragonfly Society's national atlas. He commented that without professional help from Steve Prentice, coupled with the payment of travel expenses, many of the remote areas of Britain would not have been recorded. At one point scientists considered that it was pointless to repeat the exercise once an atlas had been produced. It took many years for BTO to follow the botanists' example, when its first atlas in 1976 was followed by a second in 1988-91. To the surprise of many, data analysis showed many changes, including a considerable change in farmland bird populations (Gibbons *et al.*, 1993). Such volunteer recording provided the evidence required to justify stewardship payments on farmland. Full credit must be given to all Yorkshire bird watchers who contributed to the third BTO Atlas, especially those Union members who acted as regional organisers and validators including Mike Denton, Geoff Dobbs, Mick Carroll, Phil Bone and Gerald Light.

Unexpectedly, atlas methodology influenced conservation (Preston, 2013). Similar results were obtained following repeat surveys of both plants and butterflies in the late 1990s (Preston *et al.*, 2012). The importance of national mapping schemes in identifying declining species and, thereby, influencing conservationists in the selection of SSSI criteria and biodiversity priorities is highlighted by Porter and Leach (2013). They state that the contribution of volunteer botanists in recording species is crucial for the under-resourced professionals responsible for spending public money on nature conservation schemes.

The National Biodiversity Network

The National Federation for Biological Recording was established in 1986. Its members included many of the leading thinkers in the practice of biological recording, including Sir John Burnett, Charlie Copp and Paul Harding, then head of the Biological Records Centre at Monks Wood. It became apparent in early discussions that a national strategy for the future of biological recording was essential. The Co-ordinating Commission for Biological Recording was established, chaired by Sir John and including YNU members Professor Mark Seaward (representing the Linnean Society) and Bill Ely (Rotherham Biological Records Centre) together with Charlie Copp and Paul Harding, funded in large part by the Department of the Environment. The opening paragraph of the CCBR's Executive Summary is worth quoting: *"Since the end of the nineteenth century, when national legislation was introduced to protect birds and seals and local authorities used by-laws under the Local Government Act 1888 to protect plants, concern for the environment has grown with increasing rapidity. Over the last 40 years, since the establishment of the Nature Conservancy in 1949, it has become accepted that informed policy and decisions on issues such as land use, planning, conservation and scientific enquiries, such as the detection of global warming, require a sound factual basis. An essential, crucially important element therefore is the public availability of accurate and extensive biological records"* (Burnett *et al.*, 1995). The report opened the pathway to the formation of the NBN Trust, which now provides a major element of such a service. The Trust has established data standards, quality controls and protocols for the production of databases. We must fight to protect and improve the

existing level of service, but the public purse cannot afford small private empires where data does not move to the Gateway.

The NBN Gateway receives data not only from local record centres but also from individuals, national societies and recording schemes to which many YNU recorders contribute. The YNU has been instrumental in the establishment of a number of national societies with a summary provided in Seaward (1982). The YNU also has its share of national recorders with six of our members managing a group within the 74 invertebrate national recording schemes (http://www.brc.ac.uk/recording_schemes.asp).

Whilst groups such as plants, birds, butterflies, moths and, to a lesser extent, dragonflies are well recorded in many areas with reasonably sized resident populations, it is the less popular groups such as flies, mosses and liverworts, lichens and aquatic and marine life where recorders are few and scattered across a wide area. A national hoverfly scheme recorder made an appeal at the NFBR 2013 Conference for senior recorders to take part in mentoring, training and encouraging younger naturalists to participate in such recording schemes (Morris 2012). I urge the YNU in partnership with local societies to engage in such mentoring schemes. Morris also reported that just 21 recorders have supplied 50% of the data held by the Hoverfly Recording Scheme and a new contributor of 500-1000 records is a major gain, equating to 2-4% of new data. Isaacs (2012) demonstrated a similar pattern with Orthoptera at the previous NBN Conference with just four recorders contributing 14% of the records. However, records archived with a local records centre need to be forwarded via the NBN Gateway to be incorporated into national recording schemes. There is evidence that this does not happen.

Biological recorders have engaged in producing many local and national recording schemes over the past sixty or so years, some resulting in the publication of an atlas or similar book. These projects have been based on various resolutions, from 10km squares through tetrads to 1km squares, but site-based data has only been acquired for sites of nature conservation importance (SINCs and SSSIs). The YNU has, however, a long history of providing reports on the important aspects of the sites it visits.

The future

Voluntary organisations stimulated popular and Government support for the Tansley report, cumulating in the National Park and Access to the Countryside Act (1949) together with the formation of the Nature Conservancy in 1948 with Cyril Diver as first Director General (Anon, 1971). It was not until 2009 that Hillary Benn, Leeds MP and Secretary of State for Environment, Food and Agriculture, requested that Sir John Lawton of York University review what was required to take nature conservation forward. Sir John was assisted by the great and good from the BES, including YNU member Professor Alistair Fitter. The group asked the question "Do England's wildlife sites comprise a coherent and resilient ecological network? If not what needs to be done?" Lawton's (2010) report highlights how the country's landscape and wildlife have inspired and delighted generations and that we have a

duty to pass on such features to future generations. After all, the natural environment provides a wide range of benefits (ecosystem services) including food, water, minerals, medicines, flood defences and carbon sequestration together with economic and leisure benefits. In terms of wildlife the group found that specialists (e.g. Lapwing *Vanellus vanellus* and many pollinators) are in decline whilst generalists – species which adapt better - are doing fine. In an early (2005) example of the use of landscape-scale surveying for birds, the Swale and Ure Washlands Project surveyed the catchments of these rivers from Richmond to Boroughbridge in order to identify residual wetland sites from an area historically known to be marshy. By 2005 there was only 1 hectare of marshy land left in 95,000ha of agricultural land (Warwick, 2008). We cannot be complacent. Atlas recording schemes do not provide all the answers and your contribution, based on surveying sites good and bad, with data mobilised electronically preferably using iRecord (www.brc.ac.uk/irecord), is valuable. The system is not perfect and county verifiers need to know a little more about the ability of the users but one can attach a photograph, which may help.

Whilst preparing this Presidential address I have also been preparing a report for the National Trust on our 2013 visit to Hudswell Wood, Richmond. The last conservation assessment, undertaken by the National Trust in 1999, draws extensively on YNU members' survey reports including: Sarah White, A.W. Legg, Roy Crossley, Tom Blockeel and T. Woods. It is through such a series of written nature conservation evaluations undertaken at intervals that we can establish change with gains and losses. Our 2013 report clearly shows the decline in meadow floral diversity from the series of earlier reports. There is still much work to be undertaken, not only here but elsewhere in the County and I urge members to make their data available, as this is the only way progress or loss can be identified. The reputation of our society is dependent on the contribution made by members actively pursuing and reporting on their natural history investigations and collaborating with other conservation charities.

What, then, of the future? Following on from the Lawton review, a group from Newcastle University has identified that collaborative agri-environment schemes have more value for biodiversity than single farm schemes, with many key farmland animals ranging over an area larger than traditional British farms (McKenzie *et al.*, 2013). Natural England (2013) has published a series of on-line Powerpoint presentations outlining the importance of mosaics of habitats within the wider landscape to enhance habitat management for rare species. The BES established a citizen science group in early November 2013. This builds on successful projects run by OPAL, iSpot and special schemes running in partnership with both statutory and voluntary agencies. Once again, Yorkshire has been in the vanguard with Sarah West spearheading a very successful programme based at York University. Another important scheme, which I am certain would have been endorsed by the late Les Magee (secretary of the Freshwater Ecology Section), encourages anglers amongst others to report river flies seen whilst fishing. This partnership of over 100 organisations has been very successful in detecting pollution incidents at the earliest opportunity, allowing the Environment Agency to implement remedial measures swiftly. Les was an outstanding field

naturalist and angler with an unrivalled knowledge of the River Wharfe, accumulated over many years.

On a personal note, I believe the co-incidence mapping of interdependent plants and animals will become highly important whilst detailed mapping of rare plants visible at different times of the year will quickly highlight interdependent habitats. Maps of the day-flying Chimney-sweeper moth *Odezia atrata* and its larval foodplant Pignut *Conopodium majus* at 10km square level and also in VC65 at 1km square level demonstrate a disjointed recording effort between lepidopterists and botanists (see Plate III, centre pages, for both figures). A map (Plate IV, centre pages) of Petty Whin *Genista anglica* and Marsh Gentian *Gentiana pneumonanthe* at Winfrith Heath in Dorset shows detail of their relationship at a local scale and Colin Howes (pers. comm.) reports that a similar situation existed in earlier times at Doncaster Racecourse. Such multi-species mapping is becoming increasingly important to national agencies.

The immediate ecological task facing JNCC in 2014 includes monitoring the spread of aliens such as Harlequin Ladybird *Harmonia axyridis* and Water Fern *Azolla filiculoides* and establishing the state of pollinators. The importance of pollination in maintaining our lifestyle was highlighted by Goulson (2013). These are important tasks which local societies and their members can take part in and report on, truly contributing to our scientific knowledge base.

Acknowledgements

I am indebted to John Bowers for helping me to marshal my initial rambling thoughts; to Trevor James (NFBR) who kindly read an earlier draft and highlighted some small errors; to Paul Harding for opening my Presidential year by nominating me for honorary membership of the NBN Trust and to Albert Henderson for much help, kindness and friendship over many years as a YNU trustee. I would also like to thank Dr Helen Roy (CEH Wallingford) for assistance with the Chimney-sweeper-Pignut maps and Dorset Environmental Records Centre for use of the map of Winfrith Heath.

References

- Abbott, P.P. (2005) *Plant Atlas of Mid-west Yorkshire*. Yorkshire Naturalists' Union, Leeds
- Anon (1971) *Captain Cyril Diver – a memoir*. The Nature Conservancy, Furzebrook Research Station, Wareham.
- Anon. (1984) *Nature conservation in Great Britain*. Nature Conservancy Council, Peterborough.
- Anon (1990) *Handbook for Phase 1 habitat survey*. Nature Conservancy Council, Peterborough
- Balmer, D., Gillings, S., Caffrey, B., Swann, B., Downie, I. & Fuller, R. (2013) *Bird Atlas 2007-11: The Breeding and Wintering Birds of Britain and Ireland*. British Trust for Ornithology, Thetford
- Braithwaite, M.E. & Walker, K.J (2013) *Fifty years of mapping the British and Irish flora*. Botanical Society of the British Isles, London.
- Burnett, J., Copp, C. & Harding, P. (1995) *Biological Recording in the United Kingdom – present practice and future development*. Department of the Environment, London.
- Cheetam, C.A. (1942) the Ecology of a Heather Moor. *The Naturalist* 67: 164.
- Clapham, A.R. (1951) A proposal for mapping British Vascular Plants. in Lousley, J.E., Ed. *The study of*

- the distribution of British Plants*. Botanical Society of the British Isles, Oxford.
- Crackles, F.E. (1990) *Flora of the East Riding Of Yorkshire*. Hull University Press, Hull
- Ellis, E.A. (1965), *The Broads*. Collins New Naturalist 46, London.
- Gibbons, D.W., Reid, J.B. & Chapman, R.A. (1993), *The New Atlas of Breeding Birds in Britain and Ireland, 1888-91*, Poyser. London.
- George, M. (1992) *The Land Use, Ecology and Conservation of Broadland*. Packard Publishing Chichester.
- Goulson, D. (2013) We have no Plan Bee for when we run out of pollinators. *Financial Times*, 9.11.2013.
- Grime, J.P., Hodgson, J.P. & Hunt, R. (2007) *Comparative Plant Ecology*. Second edition, Castlepoint Press, Dalbeattie
- Hill, D, Fasham, M, Tucker, G. Shewry, M & Shaw P. (2005) *Handbook of Biodiversity Methods – survey, evaluation and monitoring*. Cambridge University Press, Cambridge.
- Hill, M.O., Preston, C.D. & Roy, D.B. (2004) *Plantatt. Attributes of British and Irish Plants: Status, Size, Life History, Geography and Habitats*. NERC Centre for Ecology and Hydrology Biological Records Centre, Monks Wood.
- Hill, M.O., Preston, C.D., Bosanquet, S.D.S. & Roy, D.B. (2007) *Bryoatt – Attributes of British and Irish Mosses, Liverworts and Hornworts*. NERC Centre for Ecology and Hydrology, Wallingford.
- Hutchins, M.J., Gibson, D.J., Bardgett, R.D., Rees, M., Newton, E., Baier, A. & Sandhu, L. (2012) Tansley's vision for the *Journal of Ecology* and a centenary celebration, *Journal of Ecology* 100, 1-5.
- Lavin, J.C. & Wilmore, G.T.D. (1994) *The West Yorkshire Plant Atlas*. City of Bradford MDC.
- Lees, F.A. (1888) The Flora of West Yorkshire. *Botanical Transactions of the Yorkshire Naturalists' Union Vol. 2*. Lovell, Reeve and Co., London.
- McKenzie, A.J., Emery, S., Franks, J.R. & Whittingham, M.J. (2013) Landscape-scale conservation: collaborative agri-environment schemes could benefit both biodiversity and ecosystem services, but will farmers be willing to participate? *Journal of Applied Ecology* 50, 1274-1280.
- Miall, L.C. & Carrington, B. (1862) *Flora of the West Riding*. Bradford.
- Morris, R. (2012) Promoting biological recording – a developing conundrum. *British Wildlife* 24, 107-111.
- Newbould, J.A. (2005) Southwest Dorset Hedges (2) – a survey of the National Trust's Golden Cap Estate in Barker, K. Ed. *Dorset Proceedings* 127, 111-123. Dorset Natural History and Archaeological Society, Dorchester
- Newbould, J.A. & Higginbottom, T. (2014) Plant Galls in Swaledale. *The Naturalist* 139, 57-59
- Pearsall, W.H. (1938) Soil types and Plant Ecology in Yorkshire. *The Naturalist* 53, 57-64.
- Perring, F.H & Walter, S.M (1962) *Atlas of the British Flora*. Botanical Society of the British Isles and Thomas Nelson, London.
- Porter, K. & Leach, S.J. (2013) Botanical records and their role in shaping nature conservation priorities and actions – an English perspective. *New Journal of Botany* 3 (3) 148-155.
- Preston, C.D. (2013) Following B.S.B.I.s lead: the influence of the *Atlas of the British Flora*. *New Journal of Botany*.
- Preston, C.D., Roy, D.B. and Roy, H.E. (2012) What have we learnt from 50 years of biological recording? *British Wildlife*. 24(2) 97-106.
- Rackham, O. (2003) *Ancient Woodland – its history, vegetation and uses in England*. Castlepoint Press, Dalbeattie.
- Rodwell, J.S. (ed.) (1991-2000) *British Plant Communities* 1-5 Cambridge University Press for the JNCC.

- Rodwell, J.S., Dring, J.C., Averis, A.B.G., Proctor, M.C.F., Malloch, A.J.C., Schaminée, J.N.J., & Dargie, T.C.D. (2000) Review of the coverage of the National Vegetation Classification, *J.N.C.C. Report 302*. Joint Nature Conservation Committee Peterborough.
- Seaward, M.R.D. (1982) Yorkshire's Role in the Origin of some National Societies. *The Naturalist* 107, 117-138.
- Sheail, J. (1988) *Seventy-five years in Ecology – the British Ecological Society*. Blackwell Scientific Publishers, Oxford.
- Valentine, D.H. (1961) The Future of the British Flora. *The Naturalist* 86, 3-10.
- Walters, S.M. (1951) The Study of Plant Distribution in Lousley, J.E., Ed. *The study of the distribution of British Plants*. Botanical Society of the British Isles, Oxford.
- Warwick, S. (2008) Bird recording on a landscape scale in *Farmland Birds in Yorkshire*, report for Natural England, YNU and North & East Yorkshire Environmental Data Centre, York.
- Wilmore, G.T.D., Lunn, J. & Rodwell, J.S. (2011) *The South Yorkshire Plant Atlas*, Yorkshire Naturalists' Union and North & East Yorkshire Environmental Data Centre, York.
- Woodhead, T.W. (1923) Botanical Survey and Ecology in Yorkshire. *The Naturalist* 48, 97-123.
- Woodhead, T.W. (1924) *The Study of Plants: An introduction to botany and plant ecology*. Oxford Clarendon Press.

Web References

- Isaacs, N. (2012) NBN Conference <http://nbn.org.uk/News/Latest-news/NBN-Conference-2012-review-and-presentations.aspx>
- Lawton, J. (2010) <http://archive.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf>
- Mackay, E. & Cham S. (2013) NBN Conference <http://www.nbn.org.uk/News/Latest-news/NBN-Conference-report-and-presentations.aspx>
- <http://publications.naturalengland.org.uk/publication/6415972705501184?category=6074729802760192>

Additions and corrections to the Yorkshire Diptera list (part 5)

Andrew Grayson

56 Piercy End, Kirkbymoorside, York, North Yorkshire, YO62 6DF

The previous paper in this series is Grayson (2009). Regrettably, the forthcoming book on Yorkshire Diptera remains in preparation; however, as part of the celebrations to mark the YNU's 150th Anniversary, I have produced an Excel Spreadsheet entitled *A Simplified Provisional List of Yorkshire Diptera*, which is available via the YNU web-site. Taking into account all adjustments due to additions, corrections, species lost to synonymy and provisionally excluded, etc., the provisional Yorkshire Diptera list at 3.3.2013 contained 4272 species, including 1571 in the sub-order Nematocera. This is a net increase of 85 species to the list at 31.3.2008 (Grayson 2009).

Initials used below refer to the following: PJC = P.J. Chandler; JDC = J.D. Coldwell; PSC = P.S. Cranston; RC = R. Crossley; RHLD = R.H.L. Disney; CMD = C.M. Drake; WAE = W.A. Ely; AG = A. Grayson; PHL = P.H. Langton; LPR = L.P. Ruse; PS = P. Skidmore; DW = D. Whiteley; RSW = R.S. Wilson. Coll. = 'in the collection of', not 'collected by'.

The following abbreviations are used where material is held in institutions:

UMZCI = University Museum of Zoology, Cambridge;

DONMG = Doncaster Museum and Art Gallery;

NMS.Z = National Museums Scotland, Edinburgh;

KINCM = Hull and East Riding Museum, Hull;

BRFMS = Cliffe Castle Museum, Keighley;

LEEDM = Leeds Museum Discovery Centre;

MANCH = The Manchester Museum;

SHEFM = Weston Park Museum stores at Acres Hill, Sheffield.

Additions to Yorkshire Diptera List

MYCETOPHILIDAE

Anatella emergens Caspers: (63) Wortley Top Forge, SK2999, 22.8.2009 (♂) 26.9.2009 () JDC.

Boletina pallidula Edwards: (63) Wortley Top Forge, SK2999, 22.4.2009 (♂) 1.7.2009 () JDC.

Leptomorphus walkeri Curtis: (63) Wortley Top Forge, SK2999, 5.8.2009 (♂) JDC.

Trichonta pulchra Gagné: (63) Wortley Top Forge, SK2999, 16.8.2009 (♂) JDC.

CECIDOMYIIDAE

Macrolabis aquilegiae (Kieffer, 1909): (64) gall on *Aquilegia vulgaris* in Joyce Payne's garden at Cawood, T. Higginbottom, [photograph shown at YNU meeting in Doncaster on 13.10.2012].

CHIRONOMIDAE

Ablabesmyia longistyla Fittkau, 1962: (64) Gouthwaite Reservoir, 2008-2009 LPR; River Wharfe (Coll. RSW) (Langton, 1980: 444); Ribbleshead Moor (Coll. RSW) (Langton, 1980: 444); River Skiffare (Langton, 1980: 444).

Corynoneura gratias Schlee, 1968: (64) River Wharfe, SE052575, 16.8.1989 PHL.

Cricotopus curtus Hirvenoja, 1973: (64) Gouthwaite Reservoir, 2008-2009 LPR; (65) Bishopdale Beck, SD973838, 16.8.1989 PHL.

Cryptochironomus defectus (Kieffer, 1913): (64) Gouthwaite Reservoir, 2008-2009 LPR.

Nanocladius rectinervis (Kieffer, 1911): (64) River Wharfe (Coll. RSW) (Langton, 1980: 366).

Orthocladius rivinus Kieffer, 1915: (64) Gouthwaite Reservoir 2008-2009 LPR.

O. ruffoi Rossaro & Prato, 1991: (64) River Wharfe, SE052575 16.8.1989 PHL.

Pagastiella orophila (Edwards, 1929): (64) Gouthwaite Reservoir 2008-2009 LPR.

Paratanytarsus lauterborni (Kieffer, 1909): (64) River Wharfe, SE052575, 16.8.1989 PHL.

Paratrachocladius skirwithensis (Edwards, 1929): (64) River Wharfe (♂ Coll. PHL) (Langton, 1980: 413).

Rheocricotopus effusus (Walker, 1856): Langton (1980) stated that two Yorkshire sites are mentioned on page 34 of an unpublished 1979 Ph.D. thesis by PSC.

Rheopelopia ornata (Meigen): (64) Burley-in-Wharfedale, 7.1900 (2 specimens [NMS.Z] det. or teste PJC [in the genus *Conchapelopia*]).

Rheotanytarsus pentapoda (Kieffer, 1909): (64) Gouthwaite Reservoir, 2008-2009 LPR; River Wharfe (Coll. RSW) (Langton 1980: 187): (65) Bishopdale Beck, SD973838, 16.8.1989 PHL.

Tanytarsus ejuncidus (Walker, 1856): (64) Gouthwaite Reservoir, 2008-2009 LPR.

Virgatanytarsus arduennensis (Goetghebuer, 1922): (64) River Wharfe, SE052575, 16.8.1989 PHL.

PLATYPEZIDAE

Agathomyia viduella (Zetterstedt, [1838]): (63) Silkstone, SE2906, 14.5.2012 (♂) JDC.

PHORIDAE

Megaselia picta (Lehmann, 1822): (63) Hampole Wood, 5.7.1978 PS det. RHL D [UMZCI].

PIPUNCULIDAE

Cephalops (Semicephalops) straminipes (Becker, 1900): (63) Old Moor, SE4202, 25.7.2012 (♂ [dissected]) JDC.

Eudorylas fuscus (Zetterstedt, 1844): (63) Stainborough Castle, SE3203, 2.7.2011 (♀) JDC.

PALLOPTERIDAE

Palloptera usta (Meigen, 1826): (63) Winscar Reservoir, SE1502, 21.6.2009 (♂) JDC.

LAUXANIIDAE

Homoneura patelliformis (Becker, 1895): (63) Manvers, SE4401, 24.6.2012 (♂) JDC.

AGROMYZIDAE

Cerodontha (Xenophytomyza) venturii Nowakowski, 1967: (63) ♂♂ were recorded by WAE from each of the following localities: fields south of Maltby Brick Works, SK5192, 29.5.1984; Quarry Hills, SK541901, 6.5.2000; Lindrick Dale Quarry (middle shelf), SK540821, 27.5.2000; Kilnhurst Ings (north of cross drain), SK465978, 7.6.2000; between south-east path and outlet stream of Wath-Manvers Lake, SE444021, 26.5.2001.

Liriomyza demeijerei Hering, 1930: (63) open area north-west of Fatty Boyns Pond 3, alongside British Rail lines, SK460956, 27.8.1988 WAE; Don Island, west of Centenary Way, SK421922, 22.6.2006 (♂) WAE.

L. erucifolii de Meijere, 1944: (63) ♂♂ were recorded by WAE from the north-eastern edge of the tip on the west of Treeton Dyke, SK436866, 6.9.2006.

L. ptarmicae de Meijere, 1925: (63) Wickersley Wood, SK484914, 30.8.2005 WAE.

Ophiomyia pulicaria (Meigen, 1830): (63) Norwood Locks (at second lowest lock, SK472820, 26.7.1980 WAE; woodland at west of Kiveton landfill site, SK502828, 1.7.2004 (♂) WAE; Austen Park (south of footpath), SK460852, 1.9.2006 WAE. DONMAG contains material tentatively identified as this species by PS, viz. a mine in *Sonchus arvensis* from Sandall Beat on 27.8.1968 leg. PS [in the Herbarium], and a ♀ from Brecks Plantation, Kirk Sandall, 4.7.1978 leg. PS [in the main Diptera collection].

Phytomyza albipennis Fallén, 1823: (63) Dodworth, SE3105, 21.5.2012 (♂♂), 26.5.2012 (2 ♀), 28.5.2012 (♀), 30.5.2012 (), 9.6.2012 ([dissected]), 19.6.2012 () JDC.

DROSOPHILIDAE

Lordiphosa acuminata (Collin, 1952): (63) Old Moor, SE4202, 8.9.2012 (♀) JDC.

EPHYDRIDAE

Hydrellia subalbiceps Collin, 1966: (62) Ashberry Pasture, 8.6.1980 WAE; (63) Thrybergh Country Park (west arm), 1.8.1984 WAE; (65) Colsterdale, SE1280, 20.6.1981 WAE.

Notiphila guttiventris Stenhammar, 1844: (63) Old Moor, SE4202, 25.7.2012 (♂) JDC.

Ochthera manicata (Fabricius, 1794): (63) Old Moor, SE4202, 22.9.2012 (♂ [dissected]) JDC.

CALLIPHORIDAE

Angioneura acerba (Meigen, 1838): (63) Adwick Washland, SE4702, 11.8.2012 (2♂) JDC; Dodworth, SE3005, 10.8.2011 (♂), 25.9.2011 () JDC; Old Moor, SE4202, 2.6.2012 () JDC.

TACHINIDAE

Actia lamia (Meigen, 1838): (63) Carlton Marsh, SE3709, 28.5.2012 (♀) JDC; Langsett, SE1900, 13.8.2011 (♀) JDC; Rabbit Ings, SE3711, 27.6.2012 () JDC; Winscar Reservoir, SE1502, 3.7.2011 (♀) JDC.

Siphona confusa Mesnil, 1961: (63) Huthwaite, SE2700, 15.4.2011 (♂) JDC.

Sturmia bella (Meigen, 1824): (63) Scout Dike, SE2304, 28.9.2011 (♀) JDC.

Zophomyia temula (Scopoli, 1763): (63) Lindholme Hall Estate, SE707064, 10.6.2011 (♀) AG.

Re-instatements to Yorkshire Diptera List

CHIRONOMIDAE

Parachironomus biannulatus (Staeger, 1839): (64) Gouthwaite Reservoir, 2008-2009 LPR.

Formerly excluded by Grayson (2006c).

SYRPHIDAE

Eupeodes (Lapposyrphus) lapponicus (Zetterstedt, [1838]): (63) Endcliffe Park Wood, Sheffield (teste DW) (DW, pers. comm.). Formerly excluded by Grayson (2006b).

TEPHRITIDAE

Campiglossa malaris (Séguy, 1934) [= *lhommei* Hering, 1936]: (63) Old Moor, SE4202, 12.6.2012 (♂) JDC; Rabbit Ings, SE3711, 23.7.2012 () JDC. Formerly excluded by Grayson (2006b).

Exclusions from the Yorkshire Diptera List

Published Yorkshire Diptera include some species stated by authors as being not identified with certainty [e.g. with a '?', notes such as 'possibly', 'requires confirmation', etc.], and for which there have been no further Yorkshire records nor subsequent verification of material. Such species are best provisionally excluded from the county list pending verification of their occurrence. These species, and where they were published as occurring in Yorkshire, are as follows: MYCETOPHILIDAE: *Mycomya (Mycomya) trivittata* (Zetterstedt, [1838]) (Grayson, 2006); CECIDOMYIIDAE: *Geocrypta campanulae* (Müller, 1871) [= *trachelii* (Wachtl, 1885)] (Falconer, 1918 [sub nom. *trachelii*]); PIPUNCULIDAE: *Claraeola melanostola* (Becker, 1898) (Cheetham, 1947); *Dorylomorpha (Dorylomorpha) rufipes* (Meigen, 1824) (Barnes, 1938); PSILIDAE: *Chamaepsila (Chamaepsila) luteola* (Collin, 1944) (Grayson, 2006); EPHYDRIDAE: *Hydrellia flaviceps* (Meigen, 1830) [= *discors* Collin, 1966] (Skidmore, 2006); *H. ischiaca* Loew, 1862 (Skidmore, 2006); *Notiphila (Notiphila) graecula* Becker, 1926 (Skidmore, 2006).

LIMONIIDAE

Dicranomyia (Idiopyga) stigmatica (Meigen, 1830). Added to the Yorkshire list by Ashworth and Cheetham (1920) with several subsequent records, but this scarce crane fly now requires confirmation from Yorkshire as specimens determined before Stubbs (1998) may refer to *D. (I.) nigristigma* (RC, pers. comm.). Specimens re-examined to date have proved to be *nigristigma*.

Scleroprocta pentagonalis (Loew, 1873) [= *sororcula* sensu (Edwards, 1938)]. This rare crane fly requires confirmation as a Yorkshire species. It was added by Cheetham (1922) on the basis of a

specimen from Bilsdale identified by Edwards, which Edwards (1938) referred to *S. danica* (Nielsen, 1923) [= *sororcula* (Zetterstedt, 1851)]. Subsequent confusion with the Yorkshire records has been caused by the application of Zetterstedt's name *sororcula* to both *Scleroprocta* species.

CERATOPOGONIDAE

Ceratopogonidae in DONMG were revised by PS in 1994. The following were presumably then re-identified as other species, as there are no extant specimens in DONMG: *Dasyhelea* (*Dicryptoscena*) *modesta* (Winnertz, 1852) (= *holosericea* sensu Edwards, 1926, nec (Meigen, 1804), published sub nom. *holosericea* in Skidmore (1977)) and *Forcipomyia* (*Trichohelea*) *tonnoiri* (Goetghebuer, 1920) (= *papilionivora* Edwards, 1923, published sub nom. *papilionivora* in Skidmore (1976)).

CHIRONOMIDAE

Anatopynia plumipes (Fries, 1823). Recorded from Ilkley, 21.3.1909, J.H. Ashworth (Ashworth & Cheetham, 1920). Edwards (1929) stated *A. plumipes* was recorded from Britain by some of the older authors but probably in error. Chandler (1998) listed it from Ireland but not Britain.

ASILIDAE

Dioctria oelandica (Linnaeus, 1758). The purported material, collected near Low Mill, Pickering, 5.1943, on H.M. Foster's microscope slide 64 [HM], is a ♂ *Dioctria rufipes* (De Geer) (det. AG).

HYBOTIDAE

Euthyneura myrica Haliday in Walker, 1851. This species is only known from the original specimen from Dublin. The Yorkshire specimen mentioned by McLean (1988) was published as *Anthalia beatricella* sp. nov. by Chandler (1992) (I.F.G. McLean, pers. comm.).

DOLICHOPODIDAE

Aphrosylus raptor Haliday in Walker, 1851. Recorded from Yorkshire by d'Assis-Fonseca (1978) but this was presumably an interpretation error, as Chris Cheetham's record card says he collected it at Killy Begs [in County Donegal, Ireland] in August 1931. The voucher material [LEEDM] is *Aphrosylus celtiber* Haliday, which was the original species name on Cheetham's record card for *A. raptor* (RC, pers. comm.).

Hercostomus nigriplantis (Stannius, 1831). Reference to material "from a Yorkshire site" in Drake (2011) was an error (CMD, pers. comm.).

Thinophilus flavipalpis (Zetterstedt, 1843) and *T. ruficornis* (Haliday, 1838) are restricted to saltmarshes and have not been found as far north as Yorkshire (RC, pers. comm.). *T. flavipalpis* was recorded from Yorkshire in d'Assis-Fonseca (1978) but this was presumably an interpretation error, as Cheetham's record card contains only a non-Yorkshire record from 'H. Hd'. This refers to Humphrey Head which lies north of Grange-over-Sands in Cumbria (RC, pers. comm.). A 1978 record of *T. ruficornis* from moorland in VC64 is undoubtedly erroneous.

LONCHAEIDAE

Lonchaea contigua Collin, 1953 and *L. scutellaris* Rondani, 1874 were listed from Yorkshire in MacGowan & Rotheray (2008) but possibly in error, as there are no Yorkshire records on Iain MacGowan's database (I. MacGowan, pers. comm.). Provisional exclusion seems appropriate.

PHORIDAE

Megaselia nasoni (Malloch, 1914). Wording in Disney (1999) leaves the reader unclear as to whether this species has been recorded from Yorkshire. It would appear not to have been, as there are no Yorkshire specimens in Henry Disney's collection [UMZCI] [main collection checked by AG: duplicate collection checked by RHLD].

SYRPHIDAE

Cheilosia carbonaria Egger, 1860. A record from Pickering in Cheetham (1941) [which cites the author as Loew, not Egger] was presumably a transcription or typographical error for another species. There is no Cheetham record card for *C. carbonaria* and there are no Cheetham *Cheilosia* records from Pickering that are unaccounted for on his cards.

Eristalis cryptarum (Fabricius, 1794). Anderson (2007) recorded this rare British species from Sleights on 20.9.2006 but in error, as the two specimens [det. AG] were males of the common species *E. arbustorum* (Linnaeus, 1758) and *E. pertinax* (Scopoli, 1763).

SEPSIDAE

Themira nigricornis (Meigen, 1826) [= *fallenii* (Staeger in Schiødte, 1844)]. Listed by Grimshaw (1907) [sub nom. *fallenii*] from Burley-in-Wharfedale, 8.1893. The material was presumably later reidentified as a different species. Grimshaw's *Themira* with this data [NSM.Z] is currently standing under three species, viz. *T. leachi* (Meigen, 1826), *T. putris* (Linnaeus, 1758) and *T. lucida* (Staeger in Schiødte, 1844).

OPOMYZIDAE

Geomyza majuscula (Loew, 1864). Records from Manvers (Coldwell, 1999) and Little Don Valley in 1999, JDC, are erroneous (JDC, pers. comm.).

EPHYDRIDAE

Philygria interrupta (Haliday, 1833). The record from Cotterdale (Grayson, 2009) now needs clarification, as CMD notes there are diagnostic problems with clear winged *Philygria* (J.H. Cole, pers. comm.). Jon Cole is unsure of which species the Cotterdale specimen is.

HIPPOBOSCIDAE

Hippobosca equina Linnaeus, 1758. Stated by Walsh (1956) to be 'Occasional' in the Scarborough district but the source for the statement was considered unreliable by Grayson (2004).

TACHINIDAE

Gonia divisa Meigen, 1826. Listed from Potteric Carr in Bateson (2002, 2002a) but the specimen was lost due to pest damage and the record was withdrawn (D. Bateson, pers. comm.) as it was likely to have been erroneous.

OESTRIDAE

Hypoderma lineatum (De Villers, 1789). This species probably occurred in Yorkshire prior to its extinction in Britain as a result of a warble-fly eradication programme initiated in 1978; however, the records are untrustworthy; furthermore, Tarry (1981) failed to find larval evidence of *H. lineatum* in Yorkshire cattle during 1979 (Grayson, 2004).

Oestrus ovis Linnaeus, 1758. This, the Sheep Nostril Fly, was stated by Walsh (1956) to be 'Local and Occasional' in the Scarborough district but the source used for the statement was considered unreliable by Grayson (2004).

Further Notes

The following species would be new to the county list if material standing under these names, or synonyms, in museum collections were authentic and the records were published; however, further investigation is required as identifications have been queried by the determiners [either written so on identification label or via A.R. Godfrey, pers. comm.]. They are provisionally excluded from the county list until identifications are verified. KEROPLATIDAE: *Macrocera inversa* Loew [SHEFM]; MYCETOPHILIDAE: *Mycomya* (*Mycomyopsis*) *maura* (Walker) [LEEDM]; CERATOPOGONIDAE: *Culicoides* (*Beltranmyia*) *machardyi* Campbell & Pelham-Clinton, 1960 [DONMG]; CHIRONOMIDAE: *Kiefferulus tendipediformis* (Goetghebuer, 1921) [DONMG]; *Metriocnemus hirticollis* sensu Edwards, 1929 nec (Staeger, 1839) [DONMG]; *Pseudorthocladus curtistylus* (Goetghebuer, 1921) [LEEDM: cabinet R4]; *Pseudosmittia forcipata* (Goetghebuer, 1921) [DONMG]; *Rheotanytarsus muscicola* Thienemann, 1929 [DONMG]; *Thalassosmittia thalassophila* (Bequaert & Goetghebuer, 1913) [DONMG]; PIPUNCULIDAE: *Pipunculus elegans* Egger, 1860 [sub nom. *spinipes* sensu auctt. nec Meigen, 1830] [BRFMS]; CLUSIIDAE: *Clusiodes caledonicus* (Collin, 1912) [DONMG]; *C. nubila* (Meigen, 1830) [LEEDM]; AGROMYZIDAE: *Agromyza intermittens* (Becker, 1907) [DONMG]; *Aulagromyza buhri* (de Meijere, 1938) [BRFMS & DONMG]; *Hexomyza sarothamni* (Hendel, 1923) [DONMG]; *Melanagromyza sativae* Spencer, 1957 [DONMG]; *M. symphyti* Griffiths, 1963 [DONMG]; *Phytobia errans* (Meigen, 1830) [DONMG]; SPHAEROCERIDAE: *Minilimosina* (*Allolimosina*) *secundaria* (Duda, 1918) [DONMG]; *Puncticorpus cribratum* (Villeneuve, 1918) [DONMG]; EPHYDRIDAE: *Philotelma defectum* (Haliday, 1833) [BRFMS]; *Scatella obsoleta* Loew, 1861 [SHEFM]; ANTHOMYIIDAE: *Botanophila dissecta* (Meigen, 1826) [DONMG]; *Delia coronariae* (Hendel, 1925) [SHEFM]; *D. pallipennis* (Zetterstedt, [1838]) [MANCH]; *D. setigera* (Stein, 1920) [sub nom. *fennica* (Karl, 1930)] [DONMG & SHEFM]; *Pegomya seitenstettensis* (Strobl, 1880) [DONMG]; *Pegoplata debilis* (Stein, 1916) [MANCH]; FANNIIDAE: *Fannia atra* (Stein, 1895) [DONMG]; *F. carbonaria* (Meigen, 1826) [LEEDM]; *F. metallipennis* (Zetterstedt, [1838]) [SHEFM]; *F. subpubescens* Collin, 1958 [DONMG & SHEFM]; MUSCIDAE: *Coenosia flavimana* (Zetterstedt, 1845) [MANCH]; *Helina intermedia* (Villeneuve, 1899) [DONMG]; *Hydrotaea capensis* (Wiedemann, 1818) [BRFMS]; *Limnophora nigripes* (Robineau-Desvoidy, 1830) [LEEDM]; CALLIPHORIDAE: *Calliphora stelviana* (Brauer & von Bergenstamm, 1891) [sub nom. *alpina* sensu auctt., nec (Zetterstedt, [1838])] [DONMG]; *Phormia regina* (Meigen, 1826) [SHEFM]; TACHINIDAE: *Eurithia caesia* (Fallén, 1810) [LEEDM].

The following species are recorded in Doncaster Museum Data Bank [card index in DONMG] and would be new to the county list if published; however, some of the records are tentative and none are supported by specimens in the DONMG collection: PHORIDAE: *Megaselia involuta* (Wood, 1910); *M. nigrescens* (Wood, 1910); *M. pallidizona* (Lundbeck, 1920); AGROMYZIDAE: *Calycomyza humeralis* (von Roser, 1840); SCATHOPHAGIDAE: *Hydromyza livens* (Fabricius, 1794); ANTHOMYIIDAE: *Pegomya incisiva* (Stein, 1906).

CERATOPOGONIDAE

Bezzia kazlauskasi Remm, 1966. Recorded by Chandler *et al.* (2008) from the modern county of "Durham: Middleton-in-Teesdale, 21.vi.1981, 1♀ PJC". The locality is at the VC65/66 border and the specimen may have been from VC65 (PJC, pers. comm.).

DOLICHOPODIDAE

Rhaphium fascipes (Meigen, 1824) [= *latipes* (Macquart, 1827)]. Excluded in Grayson (2006b). It was also recorded by Meade (1850) [sub nom. *Porphyrops latipes*] but probably in error. The

only *Rhaphium* amongst Meade's Dolichopodidae [LEEDM: cabinet R7] is the remnants of a specimen with no locality label, identified [not by Meade] as *R. caliginosum* Meigen.

Acknowledgements

This paper would not have been possible without information and co-operation from the following: The late Marjorie Anderson, Derek Bateson, Peter Chandler, John Coldwell, Jon Cole, Roy Crossley, Martin Drake, Bill Ely, Andy Godfrey, Tom Higginbottom, Peter Langton, Iain MacGowan, Ian McLean, Les Ruse and Derek Whiteley. Most of the references to museums in this paper relate to visits made by the author several years ago and for which acknowledgements for facilitating access were published in previous papers. New acknowledgements are necessary to Keith Bland, Graham Rotheray and Richard Lyszkowsky [National Museums Scotland, Edinburgh], Henry Disney [University Museum of Zoology, Cambridge] and Paula Gentil [Hull and East Riding Museum, Hull].

References

- Anderson, M. ([2007]) Entomology Recorder's Report. *Whitby Naturalists' Club Annual Report* (2006): 42-52.
- Ashworth, J.H. & Cheetham, C.A. (1920) Additions to Yorkshire Diptera. *The Naturalist* 45: 227-234.
- d'Assis-Fonseca, E.C.M. (1978) Diptera: Orthorrhapha: Brachycera: Dolichopodidae. *Handbooks for the Identification of British Insects* 9 (5).
- Barnes, M.D. (1938) Meeting of Yorkshire Entomologists at Askern. *The Naturalist* 63: 286-288.
- Bateson, D. (2002) *Wildlife communities inhabiting Loversall Delph: A report on an 18 months study of Loversall Delph and surrounding area*. Yorkshire Wildlife Trust Potteric Carr Nature Reserve.
- Bateson, D. (2002a) Loversall Delph: A Wildlife Jewel at Potteric Carr. *The Sorby Record* 38: 2-47.
- Chandler, P.J. (1992) *Anthalia beatricella* sp. n. and two other additions to the British list of Oedaleini (Diptera, Empididae). *Dipterists Digest* [first series] 12: 16-22.
- Chandler, P.J. (editor) (1998) Checklists of Insects of the British Isles (New Series) Part 1: Diptera. *Handbooks for the Identification of British Insects* 12 (1).
- Chandler, P.J., Ashe, P. & O'Connor, J.P. (2008) Notes on Ceratopogonidae (Diptera) including some new national records for Britain and Ireland. *Dipterists Digest* (Second Series) 15: 73-94.
- Cheetham, C.A. (1922) Additions to Yorkshire Diptera List. *The Naturalist* 47: 381-382.
- Cheetham, C.A.] (1941) Yorkshire Naturalists' Union at Pickering. *The Naturalist* 66: 251.
- Cheetham, C.A. (1947) Diptera. In Yorkshire Naturalists' Union Excursions in 1947: Slingsby, July 5th. *The Naturalist* 72: 174.
- Coldwell, J.D. (1999) Insects of the Barnsley Area. *Sorby Record Special Series* 12.
- Coldwell, J.D. (2011) Diptera new to Yorkshire from the Barnsley area in 2010. *The Naturalist* 136: 159-160.
- Disney, R.H.L. (1999) A troublesome sibling species complex of scuttle flies (Diptera: Phoridae) revisited. *Journal of Natural History* 33 (8): 1159-1216.
- Drake, C.M. (2011) Does *Hercostomus nigriplantis* include two species? *Empidid & Dolichopodid Recording Scheme Newsletter* 16: 5.
- Edwards, F.W. (1929) British Non-biting Midges (Diptera, Chironomidae). *The Transactions of the Entomological Society of London* 77: 279-430.
- Edwards, F.W. (1938) British Short-palped Crane-flies: Taxonomy of Adults. *The Transactions of the Society for British Entomology* 5: 1-168.

- Falconer, W. (1918) Plant Galls of the Huddersfield District. *The Naturalist* 43: 166-168.
- Grayson, A. (2004) On the inadequacy of the Yorkshire Naturalists' Union's records of Yorkshire bot-flies and warble-flies etc. (Diptera: Oestridae), including ecological and other annotations. *Bulletin of the Yorkshire Naturalists' Union* 42: 1-12.
- Grayson, A. ([2006]). Entomological Report for 2005. In *Recorders' Reports. Ryedale Natural History Society Newsletter* (2005): 22-25.
- Grayson, A. (2006a). New Yorkshire Mycetophilidae and Agromyzidae (Diptera). *Bulletin of the Yorkshire Naturalists' Union* 46: 37-42.
- Grayson, A. (2006b) Additions and corrections to the Yorkshire Diptera list (Part 2). *The Naturalist* 131: 83-93.
- Grayson, A. (2006c) Additions and corrections to the Yorkshire Diptera list (Part 3). *The Naturalist* 131: 131-138.
- Grayson, A. (2009) Additions and corrections to the Yorkshire Diptera list (Part 4). *The Naturalist* 134: 24-29.
- Grimshaw, P.H. (1907) Diptera. In Page W. (editor) (1907) *The Victoria History of the Counties of England: A History of Yorkshire in Nine Volumes: 1: Zoology: Insects*. London: Archibald Constable. pp. 277-285.
- Langton, P.H. (1980) *Taxonomy and biology of some British Chironomidae*. Unpublished Ph.D. thesis.
- MacGowan, I. & Rotheray, G. [E.] (2008) British Lonchaeidae: Diptera Cyclorrhapha, Acalyptratae. *Handbooks for the Identification of British Insects* 10 (15).
- McLean, I.F.G. (1988) 26 May 1988. In *Indoor Meetings. British Journal of Entomology and Natural History* 1: 178-179.
- Meade, R.H. (1850) Observations on the study of Dipterous Insects. In *Insects. The Zoologist* 8: 2959-2960.
- Skidmore, P. (1976) Diptera. In *Entomological Reports for 1974. The Naturalist* 101: 30-34.
- Skidmore, P. (1977) Diptera. In *Entomological Reports for 1975-76. The Naturalist* 102: 77-81.
- Skidmore, P. (2006) An Inventory of the Invertebrates of Thorne and Hatfield Moors. *Thorne & Hatfield Moors Monograph* 2. Thorne and Hatfield Moors Conservation Forum, Doncaster.
- Stubbs, A.E. (1998) *Test Key to Subfamily Limoniidae*. Crane-fly Recording Scheme.
- Tarry, D.W. (1981) Distribution of cattle Warble flies in Britain: A larval survey. In *Papers and Articles. The Veterinary Record* 108: 69-72.
- Walsh, G.B. (1956) Order Diptera - Two-winged Flies. In Walsh, G.B. & Rimington, F.C. (1956). *The Natural History of the Scarborough District* 2 (Zoology): 288-312. Scarborough: Scarborough Field Naturalists' Society.

YNU Notice - Union publications

If you have not received your copy of *The Naturalist* 1084 or the *Yorkshire Bird Report 2011* please contact the YNU Membership Secretary, c/o NEYEDC, St William's College York YO1 7JF or email: membership@ynu.org.uk

Woodland in the Yorkshire Dales: A Case Study

Michael Pearson

email: michaelpearson@austwick.org

Introduction

Less than 5% of the Yorkshire Dales National Park (YDNP) is covered in woodland according to the YDNP Authority and this figure is reduced to below 3% when the conifer plantations are excluded. Nevertheless, trees and woodland are significant components of the Dales landscape and are of disproportionate importance when considering the botanical diversity of the area.

Was there more woodland in the Dales in the past and, if so, when did the decline begin? To explore these and related questions it is useful to examine a limited area in some detail. The area selected is the civil parish of Austwick, an area of more than eight thousand acres on the southern edge of the YDNP. It is c.13 km from Austwick Common in the south to Lord's Seat on Simon Fell in the north and extends 3.5km east from Thwaite Scars in the west. It is diverse geologically with no single soil type dominating the landscape, which rises from 130m to a height of 630m. The importance of the area is recognised by the designation of several SSSIs.

This study involves an examination of the historical evidence for woodland in Austwick and a comparison with a survey of current woodland in the area.

Documentary evidence

Although Austwick was recorded in the Domesday survey of 1086 there was no reference to there being any woodland. The earliest evidence for the existence of woodland is to be found in Peter Yorke's 'Lordship Customes' of 1573¹. In this document he, as lord of the manor, recognised that his tenants had the right "of oake for building and repairing of fire houses and barnes when a need did require, and also necessarie boughboote and ploughboote was had ... [from] woods of ye said manor". Bote or boote was used to indicate a right to take wood only for a specific purpose. Thus 'ploughboote' was timber or wood allowed to a tenant for the repair of ploughs and other farm tools. 'Boughboote' was the right to smaller branches of a tree, implying the end of the branch terminating in twigs (Wright, 1898). Unfortunately the document gives no clues as to the location of these woods.

In the 17th century the Manor Court Book provides the first record of Austwick Wood. In 1682 orders were issued for the "fence lying betwixt Austwick Wood and daleland ... be made sufficient"². In the same year the Court Book recorded "occupiers of a parcel of ground called Grimsinge lying on the North side of the River beneath Hardenbridge that they shall sufficiently cut up all Roots, Boughs and superfluous branches out of the same River which letteth Stopeth & causeth the said water to turn out of its course to the great

damage & detriment both of the highway and several adjoining neighbours.”

The will of Thomas Armitstead, who died in 1691, refers to a Melding Wood amongst his land in Austwick as well as rents from Oxenber. Although Meldings Barn appears on the OS map there is no longer any trace of a wood. Melding was listed as field 737 in the Tithe Schedule of 1851 but was classified as pasture. It appears that the wood disappeared prior to the middle of the 18th century.

Probate inventories of the time provide valuations of timber. For example, the inventory of William Bankes, who died in 1696, noted “one fullen Oake Tree’ valued at £2. Christopher Richardson, who died in 1684, had “whole timber loosewood and all other hustlement” valued at 15 shillings. In 1648 John Clapham owned “3 pieces of wood” valued at 1s 6d. These scant records provide no evidence as to the use of this timber and wood.³

The record of the boundaries for the manor in 1792 provides topographical details for the historian. The “little wood at the south side of the said field” equates to the existing wood at Blaithwaite, west of Armitstead.⁴

A record has survived from 1702 of the sale of 303 trees from Margaret Ingleby to local tanners. It is not clear how many came from Austwick as the document states that 27 trees were from neighbouring Lawkland wood.⁵

A fragment of the Austwick Wood account book for the period 1854 to 1860 has survived. It provides a few details of interest. In 1857 the rent received for herbage amounted to 5 shillings per acre. It is not clear whether this was for grazing or for the cutting of fodder. In the same year payment of £1 2s was received for stubbing of 16½ rods at 16d per rod. Stubbs were intermediate between coppice and pollards though the term was also used for both (Rackham, 2003). In 1858 17 shillings was paid for cutting briars in the wood. The management of the woodland was thus not limited to grazing and harvesting of the wood but also included some control of weeds.⁶

Of the three woods identified as existing prior to the middle of the 18th century only two have survived. Oak was the only tree identified and there is limited evidence for the use of the wood. Presumably it was used for heating, cooking, building, fencing and so on. It was also exported to the tanners of nearby Settle. It may have also been used as a fuel for the limekilns, of which there were several within the parish.

The Tithe Survey

For centuries tithes were collected in kind so that a notional tenth of a wheat harvest was paid by a farmer to the tithe owner. This changed in 1836 with the passing of the Tithe Commutation Act and a fluctuating money payment, the tithe rent-charge, was substituted. This was adjusted each year on the basis of a seven-year average price of wheat, barley and oats. The first stage was for tithe owners and tithe payers to agree a value for the rent-

charge on a voluntary basis. If this was not possible an assistant tithe commissioner was empowered to hold a local enquiry, to draft an award, hear objections and finally confirm an award which was then binding on all involved. The enquiry entailed a survey of the land with the production of a schedule and a map (often to the scale of three chains to an inch or 26.7 inches to a mile).

In the case of Austwick the survey for the tithe map was undertaken in 1847 with the schedule completed in 1851. The work was supervised by John Rawlinson as assistant tithe commissioner. The schedule lists the owners, tenants, areas of each field, often with their names as well as the use of the land. Each area was allocated a number which corresponded to those on the map.⁷ It was estimated that the total area of Austwick was 8201 acres of which 151 acres was arable, 4800 acres was inclosed meadow or pasture, 1200 acres was open stinted pasture (a stint was a pasture right based on a fixed number of animals which was agreed locally), 2000 acres was uncultivated moor and just 30 acres was woodland. Public highways accounted for the remaining 20 acres. A number of researchers have questioned the accuracy of the schedule summaries as the estimates were not always calculated from the summation of the areas of each individual plot (Kain & Prince, 2000).

As the areas of open stinted pasture and uncultivated moor were not included in the schedule for Austwick it was not possible to check the total area by adding up each plot. Instead the total area was calculated from recent OS maps, which gave a total area of 8006 acres or a difference of 2.4%. Thus the tithe schedule total area appears reasonably accurate. Working from the schedule the total area identified as woodland equates to a total of just over 83 acres. This is considerably higher than the 30 acres estimated in the summary and only about 1% of the total area.

It is possible to identify all the wooded areas within the parish by undertaking a detailed comparison of the map with the schedule. It emerged that some of the enclosed and open stinted pasture was in fact wooded. For example, Car Mire Wood (field 355) was classified as pasture. In other words the tithe commissioner classified what was wood-pasture as pasture rather than woodland. From a taxation standpoint the grazing was more important than the timber or wood. This underestimation of woodland is most significant in the case of Oxenber. This historic wood-pasture was classified in the schedule as stinted pasture. The combined areas of Oxenber and Wharfe woods is 218 acres so, with the 83 acres previously identified, the area of woodland equates to 3.6% of the parish.

Even this is an underestimate of the extent of the woodland. Careful examination of the map shows that there were woods within enclosed fields. For example, Whitestones was classified as pasture on the schedule but the map shows Whitestone Wood within it. Other examples include Gelder Leys Low Pasture (field 669), Waters House Pasture (1112), Jackson Close (1128), Laneside Croft (1411) and the Quarry Ground (375).

In the case of Gill Wood the map shows trees extending into the neighbouring fields of

Fiddle Meadow and Foregill (pasture) but this is not recorded in the schedule. Finally the map shows the area of Hobson Gill north to Throstlenest Wood as being wooded but this does not appear on the schedule. From the map it is possible to identify 53 areas of woodland, though 40 of these were less than an acre. The woodlands of 5 or more acres include Austwick Hall Wood, Bowser Plantation, Christopher Hill (Lawsings) Plantation, Car Mire Wood, Birks Plantation, Oxenber and Wharfe Wood.

Present Woodland

Having established what woodland existed in the middle of the 19th century it is possible to see how much has survived to the present day. Conversely, there may have been woodland planted during the same period. So what changes have occurred over the last 160 years?

By a combination of field work and comparisons with modern maps it was possible to undertake a census of woodland within the parish. Although some indication of tree species is provided no attempt was made to undertake a comprehensive botanical survey of the woodland. The initial focus was on woodland of 5 acres or more, followed by those woods lost since the tithe survey, new plantings and finally those areas which may have existed at the time of the survey but which were not recorded as woodland.

Oxenber/ Wharfe Woods. Both these woods are historic wood-pasture and are designated SSSIs. The tree cover is not continuous with three extensive areas of limestone pavement. The predominant trees are Ash *Fraxinus excelsior*, Hazel *Corylus avellana* and Hawthorn *Crataegus monogyna*. On the more acidic soils in the northern part of Wharfe Wood birch, Hazel, Rowan *Sorbus aucuparia* and Holly *Ilex aquifolium* predominate. Woodland shrubs such as Spindle *Euonymus europaeus* and Dogwood *Cornus sanguinea* have been found on the crags and may represent an ungrazed relic of ancient woodland. Although described as wood pasture there is little evidence of pollarding. Instead coppicing appears to have been practiced. This would have required either very low stocking levels or alternatively temporary enclosure to protect the coppice stools from grazing. The extent of these woodlands remains unchanged from the tithe map.

Austwick Hall Wood. Although Ash and Sycamore *Acer pseudoplatanus* dominate the canopy, many other trees are found in small numbers, such as Beech *Fagus sylvatica*, Field Maple *Acer campestre*, lime, Yew *Taxus baccata*, Scots Pine *Pinus sylvestris*, larch, elm, Bird Cherry *Prunus padus*, Hawthorn and Blackthorn *Prunus spinosa*. In the area nearest the Hall there are trees planted from the mid-19th century onwards, such as Douglas Fir *Pseudotsuga menziesii*, Wellingtonia *Sequoiadendron giganteum*, Beech and oaks. There is evidence of quarrying within the wood as well as areas of limestone pavement. For a wood planted in 1846/7, just prior to the survey, it has an unexpectedly rich ground flora. The extent of woodland remains unchanged since the tithe survey.

Bowser. This is a 7 acre conifer plantation, though it has probably been replanted since the tithe survey.

Christopher Hill (Lawsings) Plantation. This is now reduced to about a fifth of its original size and is limited to conifers.

Car Mire Wood. This 7 acre wood-pasture has disappeared since the tithe survey. Although adjoining Oxenber it was privately owned rather than being stinted.

Birks Plantation. This 13 acre woodland has been felled since the tithe survey and is now pasture. However, an adjoining area, Brow Side, has been planted as a conifer plantation.

Thus, some 28 acres have been lost from the larger woods that existed at the time of the tithe survey: approximately 10% of the total. Only three of the smaller areas of woodland identified from the tithe survey have since disappeared. One was field 1123 and was less than an acre in area. However it was next to Black Plantation, a mixed wood of just over an acre. Another was field 111, near Sowerthwaite Farm, which was less than a quarter of an acre. A similar-sized wood (field 377) on the edge of Oxenber has also been cleared. Thus, a total of 29.5 acres has been lost since the 19th century.

Recent Woodland

As mentioned above, there is evidence that woodland has appeared since the tithe survey. The largest is Brow Side Plantation, a conifer wood extending to c.250 acres, although only about 225 acres lie within the parish boundary. The survival of a thin strip of broadleaved woodland along the edges of the gill that runs through it is of particular interest.

In the 18th century Austwick Moss was used for turbary, divided into dales or strips each allocated to residents and landowners in Austwick. Peat cutting probably ceased by the end of the 19th century and since then the area has been colonised by trees (Cheetham, 1945). Creeping Willow *Salix repens*, Bay Willow *S. pentandra*, Rusty Willow *S. cinerea oleifolia*, Downy Birch *Betula pubescens*, Rowan, Hawthorn and Alder *Alnus glutinosa* have all become established. The birch predominates in the drier areas and the willows in the wetter parts, although in the larger area of woodland Alder replaces the birch. This SSSI covers an area of nearly 100 acres.

Finally, three other small areas were planted in the latter half of the 19th century: Long Tram, New Close and Dear Bought Plantations. The first two were planted in 1874 and the last in 1865 by T. R. Clapham, who lived at Austwick Hall. In total they cover 3.5 acres and consist of sixteen species of trees. They appear to have been planted partly for shelter but also as cover for game birds.

Relict Woodland

As one ventures north into Crummack Dale one moves into extensive areas of moorland and stinted pasture. These areas were excluded from the tithe survey and so there are no records of woodland. However, it is clear that the landscape was not treeless. The colony of Junipers *Juniperus communis* at Moughton existed at the time of the tithe survey: the earliest record of them dates from 1746 (Lees, 1888). Ash, Hawthorn and Elder *Sambucus niger* have become established in the surrounding limestone pavement where they have escaped the attention of grazing sheep. Elsewhere in Crummack Dale are c.14 small groups of trees, some along the sides of becks, amongst limestone pavement or on the cliffs. For

example, Hawthorn, Hazel and Elder cling onto the steep sides of Robin Proctor's Scar. Elsewhere Ash, Rowan and Hawthorn appear to be the commonest trees among limestone pavement. Recently areas below scars have been fenced with trees planted to join the remnants of what may have been woodland.

In other parts of the parish where there are steep-sided gills it appears that trees have survived the grazing of cattle and sheep. For example, Wharfe Gill Sike and Hobson's Gill have Hawthorn, Ash, Sycamore, Alder, birch, Holly and Rowan which appear to have existed in the 1850s, but not always recorded as such in the tithe survey.

Discussion

There have been very few studies combining historical research with field surveys of existing woods in the YDNP and these have been limited to Wensleydale, Swaledale and Nidderdale. These studies have shown that there are differences in the composition of woodland as well as marked differences between dales (Dormer, 2008). This variability is in part due to the geology, soils and elevation, other influences including the ownership, purpose and management of the woodlands. During the Middle Ages the two principal means of managing woodland were coppicing and wood-pasture. The latter provided a means of grazing animals and growing trees on the same land and was a system suited to combining hunting with wood production. Coppicing was the favoured form of management where it was more important to produce wood.

Dormer's study showed that the woods of Nidderdale and Wensleydale are quite different. Wensleydale is less wooded and such as exists is fragmented and in small blocks. The dale was a medieval hunting park with pollarded wood-pasture. However, much of Wensleydale's estate woodland had become forestry plantation for timber production by the early 19th century. On the contrary, Nidderdale had been predominantly monastic land managed by coppicing, which continued into the 19th century and was an important source of charcoal, firewood and so on.

The documentary evidence for medieval woodland in Swaledale is fragmentary (Gledhill, 2004). This landscape study showed that the upper dale was divided into a number of small units, each with a hamlet and associated walled common pasture. Lower Swaledale may also have once had its common wood-pastures but much of the woodland in this area was enclosed by the latter half of the medieval period. Gledhill concluded that most of the surviving woodland lay in the common cow-pastures which was subject to common rights. A smaller amount lay on tenanted land: very little was in the direct control of the lord of the manor. This would seem to be more in line with Austwick rather than the pattern observed in Nidderdale and Wensleydale.

In the mid 19th century the woodland in Austwick consisted of numerous small fragments of woods along with seven larger areas. These larger areas account for 271 acres or 90% of the total woodland, though noting the earlier caveat that the tithe survey underestimated

the total area covered by trees. The larger of these woods, Oxenber and Wharfe, were not under any single ownership, which may account for their survival. Further research may throw more light on the management of these areas and help to explain the diversity of their ground flora. For example, were areas enclosed to protect the young coppice shoots from grazing, providing a refuge for the re-colonisation of other areas? Another of the larger woodlands, Austwick Hall Wood, has survived to the present time. The land was of limited value for grazing and was probably planted for the pleasure of the landowner, Richard Clapham. It has been assumed that, as a keen amateur botanist, he had introduced much of the ground flora which has survived to this day. He may well have planted the *Asarabacca Asarum europaeum* and the Martagon Lilies *Lilium martagon*. Another possibility is that the limestone pavement flora within the wood re-colonised the area once the woodland was enclosed in 1846.

The small fragmentary woodland may be a reflection of the size of Victorian farms in the parish. From the 1851 census it has been calculated that 77% of the 39 farms listed were less than 100 acres (Pearson, 2013). Thus a tenant with a farm of 65 acres could not afford to devote too much land to woodland and that set aside for trees may have been marginal.

By 1851 the enclosure of Austwick was complete. It had probably started in the 16th century and was mostly achieved in a piecemeal fashion by farmers exchanging or buying land to consolidate their holdings. In addition, there had been two Enclosure Acts which affected Ingleborough and Moughton. With the rise in sheep rearing it is probable that any existing woodland would have been threatened: not so much through damage to existing trees but rather by preventing natural regeneration. The small numbers of trees hanging on in isolated pockets are mainly those that have evaded the grazing sheep.

Laurie (2012) recorded the trees on the cliffs and within the waterfall ravines of Swaledale and found Aspen *Populus tremula*, Yew and Large-leaved Lime *Tilia platyphyllos* but not Juniper. Yews in Austwick are restricted to Austwick Hall Wood and may have been deliberately planted. Aspen & Large-leaved Lime have not been found in the parish but Juniper still survives on Moughton. These differences may reflect the differential colonisation by these trees of northern Britain at different periods through post-glacial time (Godwin, 1975), influenced by differences in geology and other environmental factors.

England has 8.4% of its land area with woods of 0.1 hectares or more. The figure for Yorkshire and Humberside is 6.0% (Forestry Commission, 2001). Based on Ministry of Agriculture surveys the woodland cover for England was 4.9% in 1870. In the case of a single parish, Austwick, the present analysis shows that the woodland cover in the 1850s was 3.7% and has increased to 7.3% currently. This increase masks a loss of broadleaved woodland. There has been an extension of the area covered by conifer plantation as well as a smaller increase in the extent of broadleaved woodland, which was not the result of conscious planting but rather colonisation due to the cessation of peat cutting. Currently the area covered by broadleaves is about 4.5%.

In conclusion, the evidence for woodland in Austwick prior to the tithe survey is scant. Although trees were clearly part of the environment and the pre-industrial economy there are few details to reconstruct the areas covered by woodland. This may suggest that there was little woodland cover from at least the 11th century and the Domesday survey. It is not until the tithe survey that a more comprehensive analysis is possible and even then the evidence suggests that the extent of woodland was underestimated. Comparisons with the present time shows that several small woods have been cleared over the last 160 years but there has been an increase in the area covered by conifers and a smaller area colonised by broadleaves. It is not clear whether there has been any change in the areas of relict woods apart from the recent planting of native trees on adjoining land.

In summary, any loss of woodland would have had to have occurred prior to the middle of the 19th century and probably before the 11th century. The evidence for Austwick shows that, at least in this parish, the woodland cover increased between the 19th and 21st centuries in line with national trends.

References

- Cheetham, C.A. (1945) Austwick moss. *The Naturalist* 70: 117-20.
- Dormor, I. (2008) Tenure and purpose: two key determinants of woodland character in the Yorkshire Dales. in Atherden, M.A. & Milsom, T. (eds.) *Yorkshire landscapes past and present*. PLACE, York.
- Forestry Commission (2001) *National inventory of woodland and trees, England*. Forestry Commission.
- Gledhill, T. (2004) Woodland, industry and landscape: a history of woodland in Swaledale. In White, R.F. & Wilson, P.R. *Archaeology and historic landscapes of the Yorkshire Dales*. Yorkshire Archaeological Society.
- Kain, R.J.P. & Prince, H.C. (2000) *Tithe surveys for historians*. Phillimore, Chichester.
- Laurie, T. (2012) *Relict woodland on the cliffs and within the waterfall ravines of Swaledale – an introduction*. Conference: Trees beyond the wood. Sheffield.
- Lees, F.A. (1888) *The flora of west Yorkshire*. Lovell Reeve, London.
- Pearson, M.B. (2013) Austwick Hall: the economics of a Yorkshire Dales estate. *North Craven Heritage Trust Journal*: 6-9.
- Rackham, O. (2003) *Ancient Woodland – its history, vegetation and uses in England*. Castlepoint Press, Dalbeattie.
- Wright, J. (1898) *The English dialect dictionary*. Frowde, London.

Archive sources

- 1 Yorkshire Archaeological Society archives: MD 335/12
- 2 YAS DD91
- 3 Lancashire Records Office: WRWL Thomas Armitstead (1695), William Banks (1696), Christopher Richardson (1684), John Clapham (1648)
- 4 S. Lawrence archive, Austwick
- 5 S. Lawrence archive, Austwick
- 6 North Yorkshire Records Office PR/AUS/5/1
- 7 NYRO PR/CPM/5/2

A provisional vascular plant red data list for VC63 (S.W. Yorkshire) Field recording guidelines and field excursions - 2014

G.T.D. Wilmore

email: consultecol.wilmore@btinternet.com

Introduction

Wilmore (2013) announced details of a project which aims to produce a definitive Red Data Vascular Plant Register for VC63. That paper reviewed the selected list of candidate plant species derived from the author's personal experience over the last forty years, broken down under various heads: 1) natives; 2) natives presumed to be now extinct in the vice-county; 3) hybrids; 4) archaeophytes; 5) grey area species – native or Introduced and 6) unconfirmed. The paper concluded by indicating that it was proposed to commence active recording in 2013, when a range of selected plant species would be targeted.

The current paper seeks to provide field recording guidelines, list the selected (native) plants to be targeted in 2014, together with both historical and current locational details where known, and give details of a series of organised field meetings. It may well be that (as was the case with *The South Yorkshire Plant Atlas*) some participants in the Project may wish to undertake additional personal fieldwork and send records in. I acknowledge this in advance and am very grateful for all such initiatives.

Field Recording Guidelines

A considerable number of plant Red Data Books, rare plant registers and other checklists of rare and scarce plants have been produced already, at both national and regional levels. An important consideration would seem to be to achieve a consistent and adequate level of detail and comprehensiveness in the treatment of each taxon under discussion. This level of detail obviously determines the amount of fieldwork required to provide such information and, hence, the feasible timescale envisaged for the completion of the whole vice-county project.

The Field Recording forms (two to an A4 sheet) may be downloaded from www.ynu.org.uk/plants/links_and_downloads and will provide for adequate and consistent information on each targeted species. Brief expanded explanatory details are given below of the categories shown on the sheet:

- 1) Species name - use either the scientific or a recognised English name.
- 2) Site name and status - the name of a recognised site, e.g. Potteric Carr or Great Horton Country Park and designated status, e.g. Site of Special Scientific Interest (SSSI), Local Nature Reserve (LNR), Local Wildlife Site (LWS) or Country Park (CP). If the location has no recognised name then use any appropriate identification feature, e.g. roadside verge adjacent to minor road from X to Y.
- 3) Grid Reference - a 10-figure grid reference e.g. SE00000000, preferably using a GPS instrument, but one or two nationally very scarce plants will not be identified to this level

of accuracy (notified as and when they are targeted).

- 4) Associated Habitat - a brief indication of the associated habitat containing the rare taxon, extending to the immediate vicinity, e.g. deciduous woodland herb layer; marshland; blanket bog; calcareous/neutral/acidic grassland.
- 5) Associated Species - list a few (up to c.6) of the notable associated plants growing with the rare taxon.
- 6) DOMIN Frequency - indicate the measure of abundance of the rare taxon. Populations of any plant will vary, often considerably, over time, so attempting to count individual flowering heads or even clumps is often rendered redundant, as the population will likely change in future seasons. Also, the time taken to laboriously count a quite large, if local, population of a rare small sedge (*Carex ericetorum* for example), is not cost effective. The DOMIN scale, by comparison, is an appropriate method of estimating population numbers by percentage cover, within given tolerance bands. This system is used in NVC (National Vegetation Classification) surveys and is advocated in all surveys where quadrat analysis or other detailed vegetation estimates are required. The DOMIN scale of frequencies is given below :

Plant (Species) Cover of	91 – 100%	Domin 10
	76 – 90%	Domin 9
	51 – 75%	Domin 8
	34 – 50%	Domin 7
	26 – 33%	Domin 6
	11 – 25%	Domin 5
	4 – 10%	Domin 4
	< 4% - i.e., many individuals	Domin 3
	several individuals	Domin 2
	few individuals	Domin 1

- 7) NVC (National Vegetation Classification) Community – if applicable - It is recognised that not everybody is familiar with NVC terminology but the main NVC types, if applicable, can often be inferred from the associated habitat and species details given above. If in doubt, leave blank.
- 8) Recorder - the recorder's name.
- ☐ Date of Record - the date the visit was made.
- ☐ UK Threat Category (after Cheffings & Farrell, 2005) - Cheffings & Farrell (2005) list six WCU (World Conservation Union) categories of Nature Conservation concern, i.e. Threat Categories. These are: **Extinct**; **Extinct in the Wild** (i.e. surviving only in cultivation); **Critically Endangered**; **Endangered**; **Vulnerable** and **Near Threatened**. Many plants targeted during the course of the survey will fall into one or other of these Threat Categories.

Field Excursions Programme 2014

I look forward to seeing many of you again on these outings, where we aim to consolidate and take forward the work begun in 2013.

Sandbeck Park - morning visit (followed by Roche Abbey and Norwood in the afternoon) - Joint visit by Rotherham Naturalists' Society, South Yorkshire Botany Group and the VC63 Red Data Plant Recording Project. Sandbeck Park is a private estate owned by the Earl and Countess

of Scarborough. Target plants include Mistletoe *Viscum album*, Fritillary *Fritillaria meleagris* and Purple Gromwell *Lithospermum purpureocaeruleum*.

Meet: At the entrance to the Sandbeck Estate at SK566895. Take A634 East from Maltby, the Estate Gate is on the left just before a rt. turn to Firbeck. The walk will start from the stable block on the Sandbeck Estate at **10.00 on Saturday, 26 April 2014. Leader: Derek Bailey.**

Roche Abbey & Norwood – afternoon visit - Joint visit by Rotherham Naturalists' Society and South Yorkshire Botany Group. Target plants include Mountain Currant *Ribes alpinum*, Stone Bramble *Rubus saxatilis*, Wild Daffodil *Narcissus pseudonarcissus*, Greater Chickweed *Stellaria neglecta*, Yellow Star-of-Bethlehem *Gagea lutea*, Mountain Melick *Melica nutans*. Directions from Sandbeck Park will be given on the day. **Leader: Derek Bailey.**

Brockadale YWT Reserve - VC63 Red Data Plant Recording Project. Brockadale is situated on the River Went between Wentbridge and Kirk Smeaton just east of the A1, and is one of the most diverse and species-rich sites in VC 63, situated on the Magnesian Limestone bedrock, and comprising much calcareous grassland and woodland. Eighteen Red Data plants have been recorded over the last 20-30 years, and target species include Purple Milk-vetch *Astragalus danicus*, Dropwort *Filipendula vulgaris*, Pale St. John's-wort *Hypericum montanum*, Rare Spring-sedge *Carex ericetorum*, Hound's-tongue *Cynoglossum officinale*, Spring Cinquefoil *Potentilla tabernaemontani*, Small Teasel *Dipsacus pilosus*, Stinking and Green Hellebore *Helleborus foetidus*, *H. viridis* and Mezereon *Daphne mezereum*.

Leave the A1 at Darrington (one junction south of the M62). Turn east out of Darrington towards Womersley and after about a mile take the first turning to the right, signed Little Smeaton. After about 1.5 miles take the only right turn into an unsigned tarmacked lane to the Brockadale YWT Reserve car park (SE513173). If you reach the Little Smeaton sign, you have missed the turning by about 200 yds. **Meet at 10.00 on Saturday, 24 May 2014. Leaders: Joyce and Paul Simmons.**

Lindrick Common and Dale - VC63 Red Data Plant Recording Project. This diverse botanical area on the Magnesian Limestone has a total plant list (recorded in *The South Yorkshire Plant Atlas*) of well over 400 species. Target plants for the RDP Survey include Small Teasel *Dipsacus pilosus*, Dwarf Thistle *Cirsium acaule*, Basil Thyme *Clinopodium acinos*, Pale St. John's-wort *Hypericum montanum*, Small Scabious *Scabiosa columbaria* and Field Garlic *Allium oleraceum*. There may also be a chance to see the Marbled White butterfly *Melanargia galathea*, a predominantly southern UK species which is reaching the northern edge of its range in South Yorkshire and Lincolnshire. This species should be flying then, given warm conditions.

For those travelling south, leave the M1 motorway at Junct. 31 and take the A57 eastbound towards Worksop. Continue along A57 for approx. 5.5km and meet in the layby on the N. side of the A57 adjacent to Anston Stones Wood (SK537828). **Meet at 10.30 on Sunday, 6 July 2014. Leader: Kenneth Balkow.**

Wilthorpe Marsh – Joint visit by South Yorkshire Botany Group and the VC63 Red Data Plant Recording Project. Wilthorpe Marsh is one of the most diverse wetland areas in Barnsley District. Target plants for the RDP Survey include Frogbit *Hydrocharis morsus-ranae*, Pale Sedge *Carex pallescens* and Wood Club-rush *Scirpus sylvaticus* at nearby Hoyle Mill. Other species to

look out for are Northern Marsh Orchid *Dactylorhiza purpurella*, Brown Sedge *Carex disticha*, Blunt-flowered Rush *Juncus subnodulosus*, Adder's-tongue Fern *Ophioglossum vulgatum*, Pepper Saxifrage *Silene silene* and Bee Orchid *Ophrys apifera*.

Meet at SE324078 (33 Wilthorpe Rd, Barnsley - Sat. Nav. S75 1JA). If coming from the south, take the A635 out of Barnsley for approx 2.5km; if coming from the north, exit M1 motorway at Junct. 38, take A637 towards Barnsley and at first roundabout take A635 (Wilthorpe Rd). **Meet at 10.00 on Saturday, 26 July 2014. Leader: Peter Middleton.**

Fishlake area – Joint VC 63 Red Data Plant Recording Project and South Yorkshire Botany Group visit. This is a diverse area of north-east Doncaster District comprising tidal washlands and other wetland areas around the River Don. Target plants include True Fox-sedge *Carex vulpina*, Narrow-leaved Water-plantain *Alisma lanceolatum*, Marsh Dock *Rumex palustris*, Golden Dock *R. maritimus*, Greater Duckweed *Spirodela polyrhiza*, Fine-leaved Water-dropwort *Oenanthe aquatica* and Stone Parsley *Sison amomum*. Other interesting species include Water Violet *Hottonia palustris*, Greater Burdock *Arctium lappa* and Flowering Rush *Butomus umbellatus*. Coming from the north, leave the M62 at the M18 junction (35) and travel south to Junct 6 on the M18.

Leave at Junct 6, and take the northbound exit along the A614 towards Rawcliffe. After approx. 0.6km turn sharp left off the A614, over the River Don to the car parking area w. of Jubilee Bridge (SE674148). Car parking space is limited, so car sharing would be advantageous. **Meet at 10.00 on Saturday, 9 August 2014. Leader: Louise Hill.**

Blaxton Common – VC 63 Red Data Plant Recording Project. Blaxton Common is a diverse area of abandoned sand workings, open water subsidence areas and scattered to locally dense developing scrub woodland with patchy open grassland communities. Target plants include Long-stalked Crane's-bill *Geranium columbinum*, Heath Cudweed *Gnaphalium sylvaticum*, Needle Spike-rush *Eleocharis acicularis*, Golden Dock *Rumex maritimus*, Hybrid Bulrush *Typha x glauca*, Huntingdon Elm *Ulmus x vegeta* and Slender Parsley-piert *Aphanes australis*.

Coming from the north, leave the M62 at the M18 junction (35) and travel south on the M18, leaving it at Junct 5 (M180). Travel along the M180 to Junct 1, turn right at the roundabout there and join the A18 towards Hatfield and Hatfield Woodhouse. After 1.5km turn left on to the A614 and continue south past Lindholme Prison and pass over the River Torne towards Blaxton Park on the left, at the entrance gates to Levels Lane Plantation and Blaxton Common at SE677016. **Meet at 10.00 on Saturday, 6 September 2014. Leaders: Louise Hill and Geoffrey Wilmore.**

References

- Cheffings, C.M. & Farrell, L. (2005) *The Vascular Plant Red Data List for Great Britain. Species Status 7*, 1-116. JNCC, Peterborough.
- Wilmore, G.T.D. (2013) A provisional Vascular Plant Red Data List for VC63 – an evaluation of current status. *The Naturalist* 1082, 18-31.
- Wilmore, G.T.D., Lunn, J. & Rodwell, J.S. (2011) *The South Yorkshire Plant Atlas*. YNU & YHEDT.

The lichens of Lawnswood Cemetery, north Leeds

Mark R. D. Seaward

Department of Archaeological, Geographical & Environmental Sciences,
University of Bradford, Bradford BD7 1DP

Due to ever-increasing overcrowding in urban churchyards and public awareness of the subsequent health hazards, the cemetery movement came into being and the first one was opened in Norwich in 1819 as a private enterprise. The first in Leeds was opened at Woodhouse (Leeds General Cemetery) in 1835 and the second in Beckett Street (Burmantofts Cemetery) in 1845. Since St Michael's churchyard in Headingley was reaching capacity in the 1870s, a suitable site for a new cemetery was found at Lawnswood. George Corson (1829-1910), a noted Leeds architect, was responsible for the design of the lodge and chapels and the layout of the cemetery, which included retaining a border of trees at its margin and the finest tree specimens within its boundaries. The landscaping was undertaken by William Gay (1814-1893), who had previously been responsible for similar work at Undercliffe Cemetery in Bradford.

Lawnswood Cemetery was opened in 1875 and the first burial took place on 23 January 1876. The original 10 acre cemetery has been extended over the years, the sweeping curves of the Victorian section contrasting with the land-efficient rectangular layout of the 1910 extension. The current cemetery extends to over 65 acres of park and woodland, part of which is listed as of special interest on the Historic Parks and Gardens Register. Within the cemetery, managed by Leeds City Council since 1972, most of the buildings and four of the monuments are Grade II listed. Apart from family plots and the Green Burial Area, the cemetery is currently full for burials.

Although Lawnswood Cemetery (SE2639 & SE2638; alt. 140-155m) is distinctly suburban, being mainly situated in an area of reasonably dense housing and adjacent to a major highway (A660), the lichen flora is relatively rich when compared with that of its environs. This is due in part to the wide range of habitats and substrata available in the cemetery with a variety of imported calcareous and siliceous gravestones as well as many different trees and shrubs of varying ages. However, it should be noted that the younger trees often support a richer epiphytic lichen flora since the older trees have an artificially-induced acidic bark generated by air pollution in the 19th and 20th centuries which is not favourable for most lichens; although this has dramatically reduced in recent decades, the low pH of the bark on trees that would naturally have a higher pH has persisted. The influence of nutrient enrichment (mainly nitrogen compounds) on corticolous (bark), lignicolous (timber) and saxicolous (stone) substrata brought about by the locally derived, and indeed long distance, dispersal of agrochemicals is also evident. A further factor which encourages and maintains the relatively high diversity of lichens at Lawnswood is the sacred nature of the location, the retention of its integrity being paramount in the conservation of these and other biota. Much of this is due to the vigilance of those who are responsible for its upkeep

and to The Friends of Lawnswood Cemetery, established in October 2011 with the aims of promoting, protecting and preserving the cemetery for future generations.

A preliminary checklist of 86 lichen species recorded in 2012 and 2013 is provided below, together with basic information on their preferred substrata and distribution within the cemetery (*N* = northern part SE2639; *S* = southern part SE2638). As well as providing an oasis for more diverse, interesting and luxuriant lichen assemblages, particularly on wood, than those in the local neighbourhood, it should be noted that *Punctelia borreri*, present on a branch of one of its trees, is new to Yorkshire! Other treasures may well be discovered within its boundaries.

Memorials, walls & buildings:

(a) Siliceous

<i>Acarospora fuscata</i> N,S	<i>Lecidella carpathica</i> S	<i>Rhizocarpon distinctum</i> S
<i>Baeomyces rufus</i> N	<i>L. scabra</i> N,S	<i>R. reductum</i> S
<i>Buellia aethalea</i> N,S	<i>Lepraria incana</i> s.lat. N,S	<i>Trapelia coarctata</i> N,S
<i>Candelariella vitellina</i> N,S	<i>Melanelixia fuliginosa</i> S	<i>T. glebulosa</i> S
<i>Lecanora conizaeoides</i> N,S	<i>Porpidia crustulata</i> N,S	<i>T. placodioides</i> N,S
<i>L. polytropha</i> N	<i>P. soledizodes</i> N,S	
<i>L. soralifera</i> N	<i>P. tuberculosa</i> N,S	
<i>Lecidea grisella</i> S	<i>Psilolechia lucida</i> S	

(b) Calcareous

<i>Aspicilia calcarea</i> N,S	<i>Collema auriforme</i> N,S	<i>Protoblastenia rupestris</i> N,S
<i>A. contorta</i> N,S	<i>C. crispum</i> N,S	<i>Rinodina oleae</i> S
<i>Caloplaca citrina</i> s.str. N,S	<i>Lecanora albescens</i> N,S	<i>Verrucaria baldensis</i> N,
<i>C. crenulatella</i> N,S	<i>L. crenulata</i> N,S	<i>V. hochstetteri</i> N,S
<i>C. flavescens</i> N,S	<i>L. dispersa</i> N,S	<i>V. macrostoma</i> f. <i>macrostoma</i> S
<i>C. flavocitrina</i> N,S	<i>L. muralis</i> N,S	<i>V. macrostoma</i> f. <i>furfuracea</i> N,S
<i>C. holocarpa</i> s.str. N,S	<i>L. semipallida</i> S	<i>V. muralis</i> N,S
<i>C. oasis</i> N	<i>Lecidella stigmathea</i> N,S	<i>V. nigrescens</i> N,S
<i>Candelariella aurella</i> N,S	<i>Physcia adscendens</i> N,S	<i>V. viridula</i> N,S
<i>Cladonia fimbriata</i> N	<i>Placynthium nigrum</i> S	<i>Xanthoria parietina</i> S

Compacted soil

Collema tenax var. *ceranoides* S

Wooden seats (lignum)

<i>Evernia prunastri</i> S	<i>Parmelia saxatilis</i> S	<i>Trapeliopsis flexuosa</i> S
<i>Flavoparmelia caperata</i> S	<i>P. sulcata</i> N,S	<i>T. granulosa</i> S
<i>Hypogymnia physodes</i> S	<i>Parmotrema perlatum</i> S	<i>Usnea subfloridana</i> S
<i>H. tubulosa</i> S	<i>Physcia caesia</i> S	<i>Xanthoria parietina</i> S
<i>Lecanora conizaeoides</i> N	<i>Placynthiella icmalea</i> S	
<i>L. polytropha</i> N	<i>Punctelia subrudecta</i> s.str. S	
<i>Melanelixia subaurifera</i> S	<i>Ramalina farinacea</i> S	

Trees (mainly maple, ash, oak and willow) & shrubs

Amandinea punctata N,S

Arthonia radiata N,S

Buellia griseovirens S

Candelariella reflexa N,S

Cladonia fimbriata S

Cliostomum griffithii S

Evernia prunastri N

Hypogymnia tubulosa N

Lecanora chlorotera N,S

L. expallens N,S

L. umbrina S

Lecidella elaeochroma S

Lepraria incana s.lat. N,S

L. vouauxii S

Melanelixia glabratula S

M. subaurifera N,S

Mycoblastus fucatus S

Parmelia sulcata N,S

Parmotrema perlatum N

Phaeophyscia orbicularis N,S

Physcia adscendens N,S

P. caesia S

P. tenella N,S

Punctelia borrieri S

P. jeckeri S

P. subrudecta s.str. S

Ramalina farinacea N,S

Scoliosporum chlorococcum S

Xanthoria candelaria s.lat. S

X. parietina N,S

X. polycarpa N,S

Acknowledgements

The author is grateful to Dr Volker John who assisted him in the field on one of several visits and to the dedication and helpfulness of the Friends of Lawnswood Cemetery, more particularly Ann Lightman.

Book Review

Looking for the Goshawk by Conor Mark Jameson. Pp. 368. Bloomsbury. 2013. ISBN 978-1-4081-6487-7. £18.99, hardback.

Written by the author of *Silent Spring Revisited*, this book gives a fascinating insight into his search for the elusive Goshawk and the place that this impressive raptor has won in people's hearts and imaginations for many decades. The book is written as a diary and is not a scientific monologue but it contains much scientific information and the evocative narrative takes the reader on a journey through Europe and the Americas. During these travels, the author's encounters with like-minded enthusiasts for this magnificent raptor make for stimulating reading.

The book concludes with an eight page appendix entitled *Historic records of Goshawk in the British Isles*. Man's hand has long been against any bird with a hooked beak and the narrative, bringing past records together as it does, illustrates this in gruesome detail. The account for Yorkshire alone, which mainly relates to birds shot or trapped, covers more than a page of small print.

Although the book is not a comprehensive and up-to-date review of the species it is a welcome addition to the genre of popular science and will satisfy anyone looking for a thought-provoking and captivating account of this much maligned bird of prey.

MLD

Recording in VC65 July 2013

John Newbould¹, Adrian Norris² and Bill Ely³

¹email: johna72newbould@yahoo.co.uk

²email: adrianxnorris@aol.com

³email: billely@hotmail.com

John Newbould (JAN) and Adrian Norris (AN) organised a week-long residential survey based at Low Fremington (54°23'N 1°55'W). On 30 June Linda Robinson (LR), the BSBI VC65 Recorder, and two friends joined JAN to concentrate on searching wet pastures which are the sites of old records of Small White Orchid *Pseudorchis albida*. On 1 July, with Terry Crawford (TJC) and Bill Ely (WAE), we surveyed a number of areas in the lower Swale valley east of Richmond on both sides of the A1. On 2 June Terry Whitaker (TMW) joined TJC and JAN when we surveyed near Marske, whilst on 3 June TJC, JAN, TMW, WAE and AN visited Thwaite. On 4 July David and Joyce Evans, together with David Lindley (DL), TJC, AN and JAN surveyed Hudswell Wood near Richmond whilst on the final day we left Swaledale for a day in Wensleydale and Garsdale and the headwaters of the River Ure and the Clough River to allow WAE to improve the ichneumon records there.

To give some indication of coverage, plant gall lists were produced for 36 1km squares whilst botanical lists were produced for 15 1km squares in Swaledale and 5 in Wensleydale. There were several other places where short stops were made at roadside verges to record birds, molluscs and galls. A Heath moth trap was run on five nights at Low Fremington and butterfly records were made in 12 1km squares.

The wet weather of 2012 had taken its toll on the area with substantial subsidence on the B6270 from Grinton to Richmond, a landslip at Low Row and the meadows west of Grinton Bridge flooded early in 2013. These wet conditions, coupled with a prolonged cold spell in the spring of 2013, meant that many of the hay meadows had not been cut by the end of June, enabling sample botanical recording along the valley.

Designations: Most of the places surveyed west of Richmond are located within the Yorkshire Dales National Park and included samples from the following SSSIs: Arkengarthdale, Gunnerside and Reeth Moors, Lower Swale woodlands, Fotheringholme, Len Pastures, Crackpot, Millholme Meadows, Stainton Moor and Thwaite Stones.

Mammals: Undoubtedly, our favourite record was at the junction of the River Ure with the Cotterbeck where, for the first time since we started these surveys in 2009, water levels in the rivers were low, enabling DL to search under Holme Head Bridge where he noted Otter *Lutra lutra* spraints and Water Vole *Arvicola amphibius*. We certainly under-recorded the Rabbit *Oryctolagus cuniculus* population as there were numerous road casualty victims between Thwaite and Reeth, probably due to them suffering from myxomatosis. We only noted one Hedgehog *Erinaceus europaeus* squashed on the road just east of Muker. We did

not note any bats at dusk in the Grinton-Fremington area, in contrast with our 2011-12 visits. The National Trust organised a bat survey at Hudswell Wood in August 2013 and found Noctule *Nyctalus noctula*, Daubenton's *Myotis daubentonii*, Soprano Pipistrelle *Pipistrellus pygmaeus* and Pipistrelle *P. pipistrellus*, in line with our 2012 Fremington survey.

Other vertebrates seen included Brown Trout *Salmo trutta fario* in Arkle Beck at Fremington and a Viviparous Lizard *Zootoca vivipara* on Askrigg Common.

Birds: Most of the bird records were casually collected whilst on other recording activity but we submitted a list of 86 sightings to the County Recorder, of which twelve were recorded from Grinton Bridge where we noted Dipper *Cinclus cinclus* (with young), Spotted Flycatcher *Musicapa striola* feeding as well as Common Sandpiper *Actitis hypoleucos*, Oystercatcher *Haematopus ostralegus* in small numbers and a pair of Grey Wagtail *Motacilla cinerea*. Spotted Flycatcher was also seen at the Moorcock Inn in Wensleydale and also along the River Swale at Hudswell Wood. The call of Curlew *Numenius arquata* was frequently noted in moorland areas and Snipe *Gallinago gallinago* was flying low over wet areas of moorland on Askrigg Common and north-west of the Moorcock Inn. House Sparrow *Passer domesticus* was present in many villages with confirmed breeding at Thwaite and around 20 birds in hedges adjacent to housing at Scorton. AN reported a pair of Redstart *Phoenicurus phoenicurus* near Low Whitta and Lapwings *Vanellus vanellus* were back in the valley in very small numbers with a pair calling just east of Low Fremington.

Mollusca: recorded by TJC, DL and AN. See the separate report on page 61.

Invertebrates: TJC, JAN and TMW recorded just seven species of butterfly from 12 1km squares. Small Heath *Coenonympha pamphilus* in Arkengarth Dale, Clapgate Gill and Moorcock Inn was the only red data one. Green-veined White *Pieris napi* was the most frequently recorded whilst others were both Large *P. brassicae* and Small Whites *P. rapae*, Speckled Wood *Pararge aegeria*, Small Skipper *Thymelicus sylvestris* and Ringlet *Aphantopus hyperantus*. Nettle Tap *Anthophila fabriciana* was everywhere. The other most frequently recorded day-flying moth was Chimney Sweeper *Odezia atrata* at seven locations, usually associated with Pignut *Conopodium majus* in the pastures. Pignut was seen in the same area in four of these locations. Co-incidence mapping of these two species at 1km square level by BRC Wallingford shows a mis-match between moth recording and plant recording (see Plate III, centre pages). Silver-Ground Carpet *Xanthorhoe montana* appeared frequently near Stinging Nettle *Urtica dioica* beds.

Moth trapping with a Heath trap was undertaken at Low Fremington on five nights with two traps on one of the nights. The star attraction was a female Ghost Moth *Hepialus humuli* on 3 July when we ran two traps in a garden bordering a meadow which was cut on 5th July. We also had Confused *Apamea furva* on the same evening. Most of the other moths are common through the county but add to an under-recorded square.

JAN recorded a single Common Green Grasshopper *Omocestus viridulus* at Fotheringholme SSSI on 30 June.

On July 1 at Jetties Riverside Common at Brompton Bridge WAE collected three ichneumons new to VC65: the pimpline *Tromatobia lineatoria*, which attacks spiders, the campoplegine *Dusona stragifex* (the second Yorkshire record) and the ichneumonine *Probolus culpatorius*, which are both parasites of lepidoptera caterpillars. A little further west on the north bank of the River Swale E of Skeeby Beck was the wood-boring beetle *Hedobia (Ptinomorphus) imperialis*.

We then crossed over the A1 and looked at the verges of a minor road at Pepper Arden. WAE recorded the Twin-spot Centurion *Sargus bipunctatus*, two ichneumons new to VC65 – the banchine *Lissonota lineolaris*, which attacks lepidoptera caterpillars, and the orthopelmine *Orthopelma brevicorne* (the second Yorkshire record), which parasitises the gall wasp which forms the Robin's Pincushion Gall – and the first VC65 record of the figitid wasp *Melanips opacus*, which parasitises Diptera larvae.

On July 3 we visited Thwaite where WAE worked the southwest verge of Cloggerby Rigg between Cliff Gate Road & Thwaite Bridge and found the Orchid Beetle *Dascillus cervinus* and the Brooklime Leaf Beetle *Prasocuris junci* as well as four ichneumons new to VC65: the pimpline *Acrodactyla quadrisculpta*, a spider parastoid, the tryphonine *Ctenochira propinqua* (eighth Yorkshire record), which attacks sawfly larvae, and two campoplegines - *Diadegma fabricianae* (seventh Yorkshire record), which is a parasitoid of Nettle Tap Moth, and *Diadegma hygrobium* (also the seventh Yorkshire record). In addition, the cryptine *Charitopes carri* was the seventh Yorkshire record.

The footpath south of Cloggerby Rigg had the silken fungus beetle *Antherophagus pallens*, the pimpline *Pimpla wilchristi* (fifth Yorkshire record, all in VC65), the cryptine *Aclastus pilosus* (sixth Yorkshire record) and *Diadegma hygrobium* again.

On July 5 in Wensleydale the orthocentrine *Picrostigeus obscurus* at the roadside verge near the Moorcock Inn (third Yorkshire record) was new to VC65, as was the banchine *Glypta similis* (ninth Yorkshire record) at Garsdale Station. The pimpline *Pimpla melanacrias* (ninth Yorkshire record) was found in Sleddale together with two that were new to VC65 – the campoplegine *Bathyplectes curculionis* (sixth Yorkshire record), a parasitoid of weevils, and the metopiine *Chorinaeus cristator* (third Yorkshire record), a lepidoptera parasite.

Plant Galls: Our visit to Swaledale generated 241 plant gall records from 36 1km squares in the valley ranging from Thwaite Stones in the west to Pepper Arden and Scorton, east of the A1. Once again, Hawthorn *Crataegus monogyna* provided the most records with 39 or 16% of the total. These included a single record of the scarce aphid gall *Rhopalosiphum insertum* and three records of the gall midge *Dasineura crataegi*.



Plate I. Pollarded trees on parish boundaries, some surviving from medieval times, at Filcombe Farm, Dorset (see p4).
J.Newbould

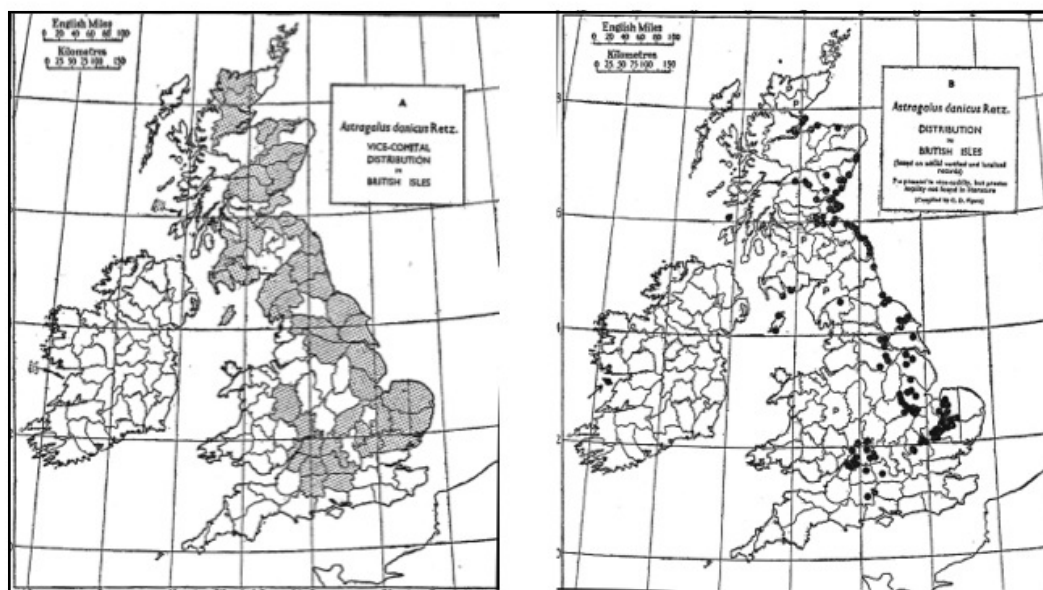


Plate II. Walters' maps of the distribution of Purple Milk-vetch *Astragalus danicus*. These are early examples of the use of Watsonian vice-counties to record distribution (see p7 and the front cover).
Reprinted from: The study of the distribution of British Plants. Botanical Society of the British Isles, Oxford.

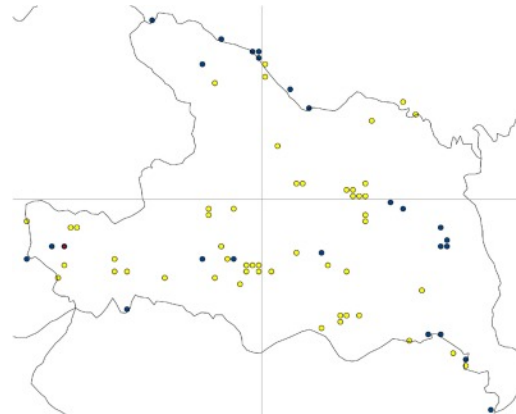
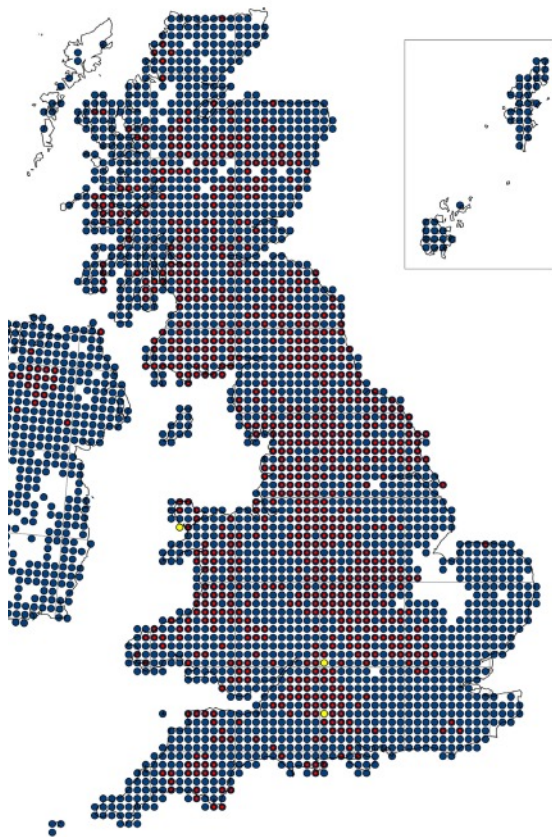


Plate III. Differences in mapping at different scales (see p12 and p39).

Left: Mapped at a 10km square level, blue dots show distribution of Pignut, red dots show distribution of both Chimney Sweeper moth and Pignut while two yellow dots show the moth only. Above: In VC65, mapped at a 1km square level. Yellow dots show Chimney Sweeper, blue dots Pignut and the one red dot (near left side of map) is where both have been recorded.

The situation in VC65 from data held by the Biological Records Centre at Wallingford October 2013.

© NERC Centre for Ecology and Hydrology 2013



Plate IV. Co-incidence mapping (see p12).

The map of Winfrith Heath, Dorset (left) shows the distribution of Marsh Gentian (above) by green dots and Petty Whin (right) by red dots.

Map by courtesy of Dorset Environmental Records Centre.

Photos: J. Newbould



Plate V. Juniper (see pp46-56).

Top left: Juniper growing in Upper Teesdale, on Dinehome Scar near Cronkley Farm. The plants were healthy when photographed in May 2010, but *Phytophthora austrocedrae* was reported on plants in this area in 2013. (The bushes in the foreground are in VC65, those north of the river are in VC66.)

Top right: Healthy Juniper by Browna Gill, Stainton Moor SSSI.

Above left: Healthy Juniper with fruit; Thwaite Stones SSSI, 2013.

Above right: Moribund Juniper; Ingleborough, Juniper Ghyll, Nov. 2013.

T. Whitaker & P. Simmons



Plate VI. Species-poor (left) and more species-rich (right) meadows in Swaledale (see p43). Both meadows have buttercups and Pignut, but the more rich meadow can be seen to have Wood Crane's-bill, Red Clover and several species of grass.
J. Newbould & P. Simmons



Plate VII. Wood Crane's-bill, often seen on roadside verges in the Dales (see pp42 and 43).
J. Newbould

Plate VIII. Plant galls found near Richmond in Swaledale in 2013 (see pp57-58).
Below left: Cryptomyzus korschelti, an aphid gall on Mountain Currant.
Below right: Cottonwool Gall Andricus quercusramuli on oak.
T. Higginbottom



Twenty-nine (12%) of the records were from Ash *Fraxinus excelsior*, the second most frequent host plant with the gall midge *Dasineura acrophila*, well recorded in South Yorkshire but with few North Yorkshire records on the NBN Gateway. The gall mite *Cecidophyes rouhollahi* was seen on Cleavers *Galium aparine* in many places in 2012 but only three times in 2013. Another gall mite was *Trisetacus quadrisetus* on Juniper *Juniperus communis* ssp. *communis*. Inevitably this gall will be scarce as it is only found on the fruits of female plants and was recorded at Thwaites Stones and Stainton Moor SSSI. Also associated with Juniper is the fungus *Gymnosporangium cornutum* (see back cover), which galled Rowan *Sorbus aucuparia* at Thwaite Stones and Grinton Church. The teleutospores are found on Juniper in the spring and the spermogonia and aecidia are on Rowan in the autumn (Wilson and Henderson, 1966). There is no publicly available information on the NBN Gateway. Two scarce fungal galls were *Puccinia chaerophylli* on the fairly common Sweet Cicely *Myrrhis odorata* and the not uncommon rust *Phragmidium sanguisorbae*, which was found on the only patch of Salad Burnet *Sanguisorba minor* seen all week, at Clapgate Gill.

More galls were recorded on oak in 2013 than in previous years with five species and seven records. Even the large oak at the entrance to Grinton churchyard, which has yielded nothing in previous years, had the wasp gall *Andricus curvator*, also seen on a young oak further east at the head of Deepdale. There were three records of the Cherry Gall *Cynips quercusfolii* and one record of the wasp gall *Cynips longiventris*.

There was a single record of the artichoke-shaped midge gall of *Taxomyza taxi* on Yew *Taxus baccata* in Hudswell Wood and also a single record of the mite gall *Eriophyes arianus* on Whitebeam *Sorbus aria* agg. at Marske. Again, little information on this species is available on the NBN Gateway. With little Field Maple *Acer campestre* found in the upper Dale, we needed to be at the eastern end to record its galls. Four common ones were seen at Pepper Arden and Brompton-on-Swale.

Broad habitat types in the survey area included:

Rivers and streams: The importance of the River Swale and its associated tributaries such as Arkle Beck and Gunnerside Gill is in providing habitat for many invertebrates and higher vertebrates, e.g. Otter and Water Vole. For the first time since 2009 our visit had not been preceded by heavy rain so, with water levels low and the stone beds exposed, there were occasional survey opportunities. We did not note any waterside plants of conservation importance. The National Trust is controlling Himalayan Balsam *Impatiens glandulifera* at Hudswell Wood. Monkeyflower *M. guttatus* was recorded on the north bank of the Swale opposite Hudswell Wood and also on the north bank of the River Ure near Thwaite Bridge with the hybrid neophyte *Mimulus guttatus x luteus* (*M. x robertsii*) near Stang Bridge.

Boundary and linear features: Traditional hedgerows are really only found in the lower valley east of Low Fremington. The field between Home Farm and Grinton Bridge has a

managed five-species hedge containing Ash, Hazel *Corylus avellana*, Dog Rose *Rosa canina* s.l., Wych Elm *Ulmus glabra* and Elder *Sambucus nigra*. East of Richmond the Swale enters the lowlands of the Vale of York, agriculture becomes more intense but four- or five-species hedges can be found with the occasional veteran Ash as at Scorton, where JAN noted a pollard with a diameter of 1.25m (considered truly ancient by DEFRA) in a hedge containing old Hawthorns and Elder. Another typical hedge at Pepper Arden had a number of standard Ash, a single Pedunculate Oak *Quercus robur*, Hawthorn, Dog Rose and Elder.

Most of the field boundaries in the upper Dale are dry stonewalls. These may have considerable biodiversity interest with one wall at Thwaite having the distinctive lichen *Cladonia diversa* and the Common Pincushion Moss *Dicranoweisia cirrata* amongst a number of unidentified crustose lichens. In many other instances the field boundary is a wet woodland containing Alder *Alnus glutinosa*.

Elsewhere, verges seem to be an important refuge for Wood Crane's-bill *Geranium sylvaticum* (see Plate VII, centre pages) with records from Hawdraw and Crackpot.

Upland mixed ashwoods: A narrow stretch of Ash-Rowan-Dog's Mercury community (NVC W9a) is at Gill Plantation, south-east of Crackpot. This steep east-facing woodland slopes down to Haverdale Beck and has most of the plants typical of this woodland community with the exception of Dog's Mercury *Mercurialis perennis*. There are many Hazel coppice stools and Toothwort *Lathraea squamaria* was still visible unusually late in the season. Alder was associated with the beck and wet seepages had Opposite-leaved Golden-saxifrage *Chrysosplenium oppositifolium* and Ramsons *Allium ursinum* replacing Dog's Mercury. Holly *Ilex aquifolium* was also present but Wych Elm was rare. The Haverdale Beck to the north of a small bridge had an interesting moss-covered waterfall. Doreen Davis recorded 18 common bryophytes here including Long-beaked Water Feather-moss *Rhynchostegium riparioides* and the Endive Pellia liverwort *Pellia endiviifolia* and commented that the list would have been doubled by collection with microscopic examination. We also recorded the lichen *Peltigera membranacea* from a fence post on the east side of the wood.

Lowland mixed deciduous woodland: see Hudswell Wood report page 63.

Wet Woodlands: Typically NVC community W7 Alder–Ash–Yellow Pimpernel woodland is found alongside watercourses through the Swale Valley with trees such as Sycamore *Acer pseudoplatanus*, Rowan, Hazel and Downy Birch *Betula pubescens* as components together with either Goat *Salix caprea* or Grey Willow *S. cinerea*. Such communities appeared in the surveys carried out in 2013 at Hudswell Wood, Crackpot, Fotheringholme SSSI and at Thwaite and have been reported on our previous visits. Whilst JAN generally has looked at Alder for its galls, little attention was paid to obtaining detailed botanical data on its associated plant communities nor on assessing any past management such as coppicing or possible age of the woodland by tree size. Grime (2007) reports that seedlings have only been recorded up to 240m but at Thwaite Bridge and Skeugh Gill we recorded it at c.280m

in quite wet areas on waterlogged soils, although Alder prefers freely-draining soils, while at Fotheringholme in Arkengarthdale it was at 300m. Whilst Alder is shown filling most 10km squares in the UK on BSBI and NBN Gateway distribution maps, more detailed recording with altitude might well reveal a different story. Certainly with published data in VC65 (at higher resolution) the tree and the potential distribution of the habitat is data deficient. Seedlings are susceptible to drought and a cold spring and they also require high humidity and high oxygen together with a high light intensity. All are factors which could limit germination.

Acid grassland: No areas of acid grassland surveyed were large enough for the habitat to be mapped. At three places marginal Heather *Calluna vulgaris* indicated more acidic areas but generally these were on the edges of flushes.

Neutral grassland – lowland meadows (see Plate VI, centre pages): In early June, JAN and his wife drove through Swaledale whilst returning from Scotland and stopped in Gunnerside, when he took the opportunity to survey a meadow full of Meadow Buttercup *Ranunculus acris*. He could barely believe that he noted just 12 species of plants. Returning in early July, he looked at just two more of these buttercup meadows with one at Low Whitta scoring just 12 plant species and one between Fremington and Grinton just 18. Many of these meadows, can only reasonably be surveyed by looking over a gate or a wall so as not to damage the silage crop. Peterken (2013 pp 194) considers the factors underlying plant diversity in meadows and two of them stand out:

- Soil texture, reaction and nutrient status (Ellenberg indicator values (Hill *et. al.*, 2004)): the plants in these meadows indicated low nitrogen, neutral pH, good light and reasonable moisture levels. Only the meadow at Low Fremington had Meadow Crane's-bill *Geranium pratense* and Bistort *Persicaria bistorta* but all had Pignut. There was just one meadow at Thwaite with a single plant of Wood Crane's-bill skulking by a wall where the machine could not reach.
- Management past and present determines the plants capable of growing on a site. Elsewhere, at Hudswell Wood, species loss in the National Trust meadow is described on page 67. It is concluded that, with silage crops being taken from late June to mid-July using very new tractors and large-scale equipment, farmers are using contractors whose next jobs will be in the cornfields of the adjacent Vale of York. Is there any evidence that the meadows are being cut too early before viable seed has set?

Fortunately, there are wet pastures on hill slopes unsuitable for machines where good grassland still exists. Many of these are protected within the SSSI network. Some of these are outlined in the paragraph on upland flushes.

Upland meadows: The meadows looked more promising on the hill slopes in the upper Dale. JAN surveyed two north of the hamlet of Thwaite. One, forming part of a SSSI, had 21 species of flowering plants, sedges and rushes including Quaking-grass *Briza media*, Bistort,

Yellow-rattle *Rhinanthus minor*, Bird's-foot-trefoil *Lotus corniculatus*, Pignut, Heath Milkwort *Polygala serpyllifolia*, Mouse-ear-hawkweed *Pilosella officinarum*, Tormantil *Potentilla erecta*, Common Knapweed *Centaurea nigra* and Green-ribbed Sedge *Carex binervis*. Bluebell *Hyacinthoides non-scripta* was found adjacent to the Alder woodland at the streamside.

Another meadow west of Skeugh Gill had an interesting wet area forming a mixture of NVC community MG8 Crested Dog's-tail–Marsh Marigold and the rush pasture community MG9 Yorkshire Fog–Tufted Hair-grass with herbs such as Ragged Robin *Lychnis flos-cuculi*, Marsh Bedstraw *Galium uliginosum* and frequent Sweet Vernal-grass *Anthoxanthum odoratum*, Cuckoo Flower *Cardamine pratensis* and Yellow-rattle.

At Clapgate Gill, north-east of Marske, we headed north across some quite improved grassland where, by chance, was what we can only assume was a former mining spoil-heap. In what at first seemed an unpromising area we recorded nearly sixty species of plants. It was an area of mixed habitat with occasional patches of quite dense Bracken *Pteridium aquilinum*, Hawthorn and Holly scrub, acid grassland with Heath Bedstraw *Galium saxatile*, Mat-grass *Nardus stricta* and Wavy Hair-grass *Deschampsia flexuosa*, wet flushes with Tufted Hair-grass *D. cespitosa*, Marsh Thistle *Cirsium palustre*, Common Yellow Sedge *Carex viridula* ssp. *oedocarpa* and Water Forget-me-not *Myosotis scorpioides*. The spoil heap was covered with Rock-rose *Helianthemum nummularium* which TMW searched in vain for the presence of Northern Brown Argus *Aricia artaxerxes* larvae. Other herbs present here included Limestone Bedstraw *Galium sternerii*, Fairy Flax *Linum catharticum* and Salad Burnet.

Adjacent to Clapgate Beck was a large coppiced Ash which yielded nine common lichens on three small twigs.

Upland flushes, fens and swamps: These are defined as peat or mineral-based terrestrial wetlands in upland situations which receive water and nutrients from surface and/or groundwater sources as well as rainfall. On Sunday June 30th JAN and LR surveyed two places at Len Pasture and Fotheringholme specifically for Small White Orchid. This is a tuberous perennial herb of well-drained hill pastures with an Ellenberg indicator value of pH6 but was found here with associated plants having a much more acidic value. Preston *et.al.* (2002) describes it as a declining plant in a wide range of habitats including those on calcareous soils. LR wanted to search wet areas where the pasture changed from calcareous grassland to acidic grassland, describing the plant as being in that sort of transition zone in the Dales. At Len Pasture it was associated with Devil's-bit Scabious *Succisa pratensis*, Tormantil, Sweet Vernal-grass, Pignut and Wood Anemone *Anemone nemorosa*. At Fotheringholme associates included Green-ribbed Sedge, Star Sedge *Carex echinata*, Flea Sedge *C. pulicaris*, Lousewort *Pedicularis sylvatica*, Tormantil, Mat-grass and Heath Milkwort. At Len Pasture the average Ellenberg value for light was 6.2, for water 5.82, pH 4.73 and nitrogen 3.45 whereas at Fotheringholme light was 7.36, moisture 6.73, pH 3.36

and nitrogen 2 (scores are evaluated with 1 being a low value, 5 being mid-range and 10 being a high value).

With these wet flushes being too steep for agricultural machinery to work and with no summer grazing, these relict pastures are some of the most important biodiversity habitats in the Dales. At Fotheringholme we recorded 75 plant species (on a day of poor weather) together with Small Heath butterflies and Chimney Sweeper moths. Curlew was heard calling from nearby. The southwestern pasture slopes adjacent to Arkle Beck had some of the finest flushes JAN has seen with Globeflower *Trollius europaeus* and two species of fragrant orchid now granted full species status: Marsh Fragrant Orchid *Gymnadenia densiflora* and Heath Fragrant Orchid *G. borealis* (Meekers *et. al.*, 2012). We also saw Frog Orchid *Dactylorhiza viridis* and the only record for Hard-fern *Blechnum spicant* during the week was here.

60 plants were recorded at Len Pasture, including Bitter Vetch *Lathyrus linifolius*, Bird's-foot-trefoil, Bluebell, Mouse-ear-hawkweed, Yellow-rattle, Ragged Robin in the wet flushes and mosses such as Glittering Wood-moss *Hylocomium splendens* and Philibert's Tamarisk-moss *Thuidium assimile*.

Mountain heaths and willow scrub: Juniper *Juniperus communis* ssp. *Communis* - see separate article by Whitaker and Newbould on page 46.

Inland Rock – scree slopes: Apart from Juniper at Thwaite Stones, the only record of any interest was Viper's Bugloss *Echium vulgare* growing from a west-facing scree slope in Deepdale.

Calaminarian grasslands: Rodwell (2000) defines the OV37 community as being restricted to spoil heaps of lead mines or outcrops of veins of heavy metals among calcareous rock-beds around the upland fringes of north and west Britain. Such habitats are usually open to grazing stock but the composition of the vegetation is strongly influenced by the mineralogy of the parent material. In terms of this report, such areas in the Yorkshire Dales can be found down to altitudes of 150m. Typical communities contain Sheep's-fescue *Festuca ovina* and Spring Sandwort *Minuartia verna*. In the four years of this Swaledale survey it is very much an under-recorded habitat.

At a brief stop at Crag End just northwest of the Charles Bathurst we recorded Moonwort *Lunaria annua*, Spring Sandwort, Wild Thyme, Mountain Pansy *Viola lutea* together with Sheep's-fescue, Bird's-foot-trefoil and Sweet Vernal-grass.

References

- Anon (1996) *UK Biodiversity Group Tranche 2 Action Plans III plants and fungi*. English Nature, Peterborough.
- Anon (2007) *Report on Species and Habitats Review*. JNCC, Peterborough viewed on line at http://jncc.defra.gov.uk/PDF/UKBAP_Species-HabitatsReview-2007.pdf

- Anon (2011) *UK Priority Habitat Descriptions*. JNCC Peterborough viewed on line at http://jncc.defra.gov.uk/PDF/UKBAP_PriorityHabitatDesc-Rev2011.pdf
- Averis, A., Averis, B., Birks, J., Horsfield, D., Thompson, D. and Yeo, M. (2004) *An Illustrated Guide to British Upland Vegetation*. JNCC, Peterborough.
- Bacon, J. Ed. (2003) *The scrub management handbook*. English Nature, Wetherby.
- Backsall, J., Manley, J. and Rebane, M. (2001) *The upland management handbook*. English Nature, Wetherby.
- Comley, R., Payne, J. and Payne K.G. (1998) YNU Excursions in 1996 Booze in Arkengarthdale. *The Naturalist* 123, 38-39
- Dobson, F.S. (2011) *Lichens*, 6th edn. Richmond Publishing Slough.
- Grime, P.J., Hodgson, J.G. and Hunt, R. (2007) *Comparative Plant Ecology* revised 2nd edition. Castlepoint Press, Dalbeattie.
- Hill, M.O., Preston, C.D. and Roy, D.B. (2004) *Plantatt – Attributes of British and Irish Plants: Status, Size, Life History, Geography and Habitats*. Centre for Ecology and Hydrology, Biological Records Centre, Wallingford.
- Meekers, T., Hutchings, M.J., Honnay, O. and Jacquemyn, H. (2012) Biological Flora of the British Isles: *Gymnadenia conopsea* s.l in Ed. Hutchins, M. *Journal of Ecology*. 100 1269-1288 British Ecological Society, London.
- Peterken, G. (2013) *Meadows*. British Wildlife Publishing, Gillingham Dorset.
- Preston, C.D., Pearman, D.A. and Dines, T.D. (2002) *New Atlas of the British and Irish Flora*. Oxford University Press, Oxford.
- Rodwell, J.S. (1991), *British Plant Communities I Woodlands and Scrub*. Cambridge University Press, Cambridge.
- Rodwell J.S. (1993) *British Plant Communities III Grassland and montane communities*. Cambridge University Press, Cambridge.
- Rodwell J.S. (2000) *British Plant Communities V Maritime communities and vegetation of open habitats*. Cambridge University Press, Cambridge.
- Wilson, M. and Henderson, D.M. (1966) *British Rust Fungi* Cambridge University Press, Cambridge.

Yorkshire Juniper scrub *Juniperus communis* ssp. *communis* - a re-appraisal in the face of a new threat

Terry Whitaker 4 Crowtrees, Low Bentham, Lancaster LA2 7E

e-mail: t.whitaker1@btinternet.com

and

John Newbould 3 Brookmead Close, Sutton Poyntz, Weymouth DT3 6RS

e-mail: johna72newbould@yahoo.co.uk

Juniper *Juniperus communis communis* is a coniferous shrub native to the British Isles. Although its centre of distribution is within Scotland it occurs at scattered localities in southern England, northern England and Wales, mostly as a component of heath or chalk and limestone grassland communities. It was originally protected under the Wildlife and

Countryside Act of 1981 and, due to dramatic declines in population and range throughout Europe (Ward, 2007), is highlighted under the European Habitats and Species directives. Juniper scrub is currently listed on Annex I of the EU Habitats Directive (92/43/EEC).

In the South of England the strongholds are the south Wiltshire Downs, south Hampshire (Ward, 2003, 2004) and at one time Surrey, but the decline there has been especially severe (Lena Ward pers. com.). Where Juniper is the dominant woody plant, NVC W19 *Juniperus communis*-*Oxalis acetosella* woodland (Rodwell, 1991) is a unique and uncommon woodland vegetation type of northern England and Scotland, mostly on SSSIs (Horsefield & Thompson 1994) and is in reality the pseudoclimax of seral progression and usually comprised of an even-aged population of over-mature plants. This northern Juniper 'woodland' is particularly important in terms of nature conservation whilst high altitude stands are valuable indicators of a natural tree line in England. There have been substantial losses in nearly every English vice-county (Backshall *et al.* 2001, Ward 2007, 2010). According to the most recent National Inventory of Woodland & Trees (Anon 2001), the areas of Juniper trees in woodland with a minimum area of 2ha were: England 99ha; Scotland 302ha; Wales 0ha, giving a UK overall total of 401ha.

The 26.5ha in the Lake District and the Yorkshire stands in VC64 represent the most southerly examples of this W19 community. The second largest area of Juniper 'wood' in the UK (and the largest in England) is in Yorkshire VC65 (in the current county of Durham) on part of Upper Teesdale SSSI (Durham) and the adjacent and contiguous Appleby Fells SSSI (Cumbria), Moorhouse and Cross Fell SSSI (Cumbria and Durham) and is protected as part of a Special Area of Conservation (SAC - EEC Directive 79/409/EEC) The included Upper Teesdale NNR has been declared a 'Biosphere Reserve' by UNESCO. In these large contiguous sites on the volcanic 'Whinsill' crags, along the River Tees and on Cronkley and Holwick Fells, Juniper forms substantial stands of W19 scrub. In Yorkshire it occurs on the limestone scars of Kisdon Fell, Harkerside Moor (Swaledale), Moughton Fell (Ingleborough) and a few small sites on the North York Moors.

Common Juniper is recognised as important and vulnerable because its extent and condition have declined considerably over the past 25 years, especially on upland sites where its importance is tied in with nature conservation and game management. Juniper is also a key food plant for a wide range of invertebrates and birds and has a unique and specialised group of associated insects, fungi and lichens. Juniper is dioecious, with male or female plants, unlike most trees where both male and female flowers occur on the same tree. Male flowers appear as yellow blossoms near the ends of the twigs in spring and release pollen which is wind-dispersed. Female flowers are in the form of very small clusters of scales which, after pollination, grow on to become berry-like, irregularly-sided cones 0.6cm in diameter, green at first but ripening slowly after a minimum of 18 months to a dark blue-purple colour and, after up to four years, turning black (Bacon 2003, Ward 2010). The seeds require disturbed ground to germinate and often pass two winters in a dormant state, are slow growing, vulnerable to competition and susceptible to drought. There is a problem

of predation from Rabbits, especially during lying snow, whilst larger animals only graze young plants.

Juniper communities are seral because extensive natural regeneration only tends to take place if the ground is disturbed by severe grazing or quarrying. In southern England it is commonly a part of a seral chalk grassland community, generally growing on shallow rendzinas representing a gradual transition to Beech *Fagus sylvatica* and Yew *Taxus baccata* woodland. Further north it occurs on both acidic and basic soils on rocky hillsides, moorland and maritime heaths, in birch, oak and pine woods and can be part of a succession to birch wood. Scrub and seral communities are not easily treated in the NVC classification and consequently were not given due consideration in early BAPs and HAPs. This nationally scarce woodland type, now mostly on statutory protected sites, merits just a paragraph in Selman *et al.* (1999), which gives no estimate of its extent in Yorkshire. However, the Yorkshire Dales Biological Action Plan [YDNP BAP] (YDNPA, 2000), although treating it with other Dales scrub habitats totalling 33ha (W21 *Crataegus monogyna-Hedera helix* scrub, W22 *Prunus spinosa-Rubus fruticosus* scrub and W24 *Rubus fruticosus-Holcus lanatus* underscrub), devotes a comprehensive, three page individual SAP to it. It is not easy to calculate the extent of Juniper reliably from published sources. In Natural England's documentation of the management units of SSSIs it is often confusingly referred to as "broadleaved, mixed and Yew woodland - upland" (e.g. in the dominant phase 1 habitat designation of Ingleborough SSSI Unit 33). In many publications it is clear the area figures reflect total site areas, not the areas of Juniper biotope, and the reorganisation and redesignation of the areas within the contiguous Upper Teesdale SSSI in 1990 further clouds the broader picture. Hence our estimate of the area of Juniper (not including numerous widely distributed solitary plants and small groups of bushes where it covers less than 0.5ha) is different from those previously estimated. Drawing together published information on the extent of this resource, Watsonian Yorkshire (VCs 64 & 65) appears to support c.75 ha of W19 vegetation (Table 1).

Juniper has long been considered under threat mainly because of regeneration failure due to unsuitable conditions. The long life of adult bushes gives rise to moribund populations dominated by male plants which appear to survive longer. No regeneration may be recorded for long periods because severe Rabbit or sheep grazing prevents seedling establishment. In Yorkshire, Cheetham (1934) presented evidence that the Moughton Juniper was the most degenerate in the northwest part of the site [Unit 32] although "30 or 40 years ago that was well covered and healthy". All that remained in 1990 were occasional dead stumps in the northwest corner (Winder, 1990). Plants in the southeast [Units 35 & 36] were considered by Cheetham to be the youngest and most flourishing but Winder noted that they were overmature and degenerate. The Teesdale population was also considered in decline in 1925 (Cheetham, *loc. cit.*).

Table 1. Inventory of large Juniper Sites in Watsonian western Yorkshire.

VC	Location	Site name	Approx Grid Ref.	Unit area Ha	Juniper area Ha	No. of plants 100s	Source
	Teesdale, Durham	Included parts of VC66 Moorhouse & Cross Fell SSSI	NY72, NY73, NY82, NY83, NY92	14036	c. 100	150-200*	Clifton <i>et al.</i> 1995 *from Gilbert 1990
65	Durham	Upper Teesdale SSSI			40.5		Horsefield & Thompson 1994
		Unit 79	NY884284	668	?		Natural England SSSI http://magic.defra.gov.uk/
		Unit 82	NY887281	275	?		Natural England SSSI http://magic.defra.gov.uk/
65	Baldersdale (Teesdale) Cotherstones Moor, Durham	Hunder Beck Juniper SSSI	NY931178	3.4	1.5	3.94	Clifton <i>et al.</i> 1995
65	Swaledale, Yorkshire	Thwaite Stones SSSI		17		5	Natural England SSSI information
		Unit 1	SD893989	12	<4	20	TW; this paper
		Unit 2	SD897987	5	<2		TW; this paper
65	Swaledale, Yorkshire	Scar Close, Kisdon Side SSSI	NY883004		<0.5		TW; this paper
65	Swaledale, Yorkshire	Lovely Seat-Stainton Moor SSSI Unit 5 Brown Gill	SE011982	20	<20	<15*	TW; this paper * Ward unpubl. data 1972
65	Swaledale	Feetham Holme SSSI Unit 1	SD994977	3.15	1	15*	Natural England SSSI information * Ward unpubl. data 1972
64	Ribblesdale	Ingleborough SSSI			4.4		Horsefield & Thompson 1994
		Ingleborough SSSI		5230	14.1		TW; this paper
		Juniper Ghyll (Unit 33)	SD793713	11	1.4		TW; this paper
		Lower Juniper Ghyll (Units 35 + 34)	SD798713 SD798710	15+2	0.5		TW; this paper
		Horton Quarry Edge (Unit 36)	SD796715	8	<.1		TW; this paper
		Moughton (Unit 82)	SD78 72	296	<12		TW; this paper

Evidence that seedling viability of Juniper declines with age of parent means that the potential for natural regeneration will also decline if stands are allowed to become moribund (Raatikainen & Tanska, 1993). Aged plants collapse and sometimes reproduce by self layering but, unfortunately, this gives rise to clones, genetically identical to the parent. These ageing populations may have been caused by excessive grazing, the prevention of seedling establishment or, in the south of England, insufficient grazing reducing the area for regeneration with seral progression shading out the plants (Ward, 1977; Clifton *et al.*, 1995; Anon, 1996). All the known Dorset plants are males, often fewer than 10 at a site. Lena Ward (*pers. comm.*) gives her assessment of the main reasons for the historical decline. “I have often suspected old age, as Juniper does seem to have a life span that is around 130 years in the open, in chalk grassland, but a lot longer in the north. I recorded what I think is the oldest Juniper in Teesdale (Durham) in 1987 with 255 annual rings. I think an opportunity has been missed in the study of Juniper ages in Teesdale as no one seems to have looked at the ages and past annual ring growth of the Junipers that died or had to be destroyed.”

Meanwhile, little effective conservation has taken place and now a new threat has emerged. Dieback and browning had been noted at all the major Yorkshire sites and were ascribed to damage in severe winter weather in previous years but we now realise that those symptoms most likely reflected infection by *Phytophthora austrocedrae*, an oomycete, a fungus-like organism that infects the plant through the root system and causes the foliage to decline and eventually die. It is a new and acute threat to British Juniper and related conifers. Reports were received in late 2010 of serious decline of native Juniper at the Upper Teesdale NNR affecting more than 200ha of Juniper. Dead and dying trees were scattered throughout c.14ha near High Force, mainly concentrated on wet, flat ground but also extending outwards across drier slopes. Affected trees had foliage reddening and browning over all or most of the crown. Examination of trees showing these symptoms revealed orange-brown lesions in the phloem at the stem collar and upper roots and scattered dieback of shoots or individual branches. Three trees had discrete girdling orange-brown phloem lesions with no apparent connection to the base of the tree (Green *et al.*, 2012). How the pathogen was introduced is still uncertain but it could have been with imported garden *Cupressaceae* as some of the early cases were on other hosts such as Lawson's Cypress *Chamaecyparis lawsoniana* and Nootka Cypress *Chamaecyparis nootkatensis*. Aged populations may be especially badly affected.

The extent of outbreaks in the UK by December 2013 is given in Table 2. Information about confirmed infections in the same period in Yorkshire sites (VC64 & VC65) is given in Table 3. Judging by advice given by Webber *et al.* (2012) the prognosis is poor for saving extensive areas of Juniper already infected. Once again the statutory UK plant health authorities appear to have failed in their responsibilities.

Table 2. Reported *Phytophthora austrocedrae* outbreaks in the UK.
(December 2013 - Sources: S. Green (2013) unpubl., A. Kirkwood (FERA) pers. comm. and <http://www.forestry.gov.uk>)

Location	Natural Environment	Nursery	Garden	Total sites
ENGLAND				26
Cornwall			2	2
Cumbria	14	1		15
Devon	-	1	1	2
Durham	2	2		4
Yorkshire	3			3
SCOTLAND				7
Perthshire	1			1
Highland	4			4
W. Scotland			2	2
TOTAL				33

Table 3. Juniper dieback & *P. austrocedrae* on sites in western Yorkshire.

Site Name	Approx Grid Ref.	SSSI site condition assessment (Natural England online information)	Introduced Plantings?	Notes from Site visits in 2013	<i>Phytophthora austrocedrae</i> confirmed (see below)
Teesdale NNR					2011
Upper Teesdale SSSI					
Dineholm Scar (Above High Force)	NY869281				2013
Below High Force (Unit 79)	NY884284				
Above Low Force (Unit 82)	NY887281				
Holwick (Low Force)	NY892278				2013
Hunder Back Juniper SSSI	NY931178	Dieback noted in May 2010	Planting pre 2010		
Thwaite Stones SSSI Units 1 & 2	SD893989	Dieback & browning noted in Unit 1 in April 2009	Adjacent tree planting	Minor dieback & browning noted in Unit 1 in June 2013	
Scar Close, Kisdon Side SSSI	NY883004				
Lovely Seat-Stainton Moor SSSI					
Harkerside Moor Brown Gill (Unit 5)	SE011982				2013 SE012981

Bellerby Moor, Black Beck	SE089936				2013 (FERA)
Feetham Holme	SD994977	Complete lack of regeneration May 2013	None		
Ingleborough SSSI (Unit 1)	SD77				
South House Moor (Unit 80)	SD7676	Rewilding of House Moor (Corkhill 1998)	100 Juniper planted (with 7000 other trees) 1998-9		
Juniper Gill (Unit 33)	SD793713	In 2009 a number of dead plants noted "is small in relation to number of healthy plants." YDNPA monitoring & collecting seed.	Minor Planting of local stock (in 2002)	Very severe dieback & browning noted in November 2013	2013 (SD790714)
Lower Juniper Ghyll (Units 35 + 34)	SD798713 SD798710		Planting 80 <i>p.a.</i> 2011-13 (Graham & Cannon 2011)	Extensive dieback & browning noted in Nov 2013	
Horton Quarry Edge (Unit 36)	SD796715				
Moughton (Unit 82)	SD7872		No planting	Very severe dieback & browning noted in Nov 2013	2013 (FERA)

Sources of confirmation: Green *et al.* (2013, in Prep.), A. Kirkwood (FERA) pers. comm.

In 2009 we visited a small area of Juniper on a west-facing slope at Scar Close, Kisdon Side SSSI at 360m (SD893004) with Adrian Norris and David Lindley. The Juniper here fits neatly into the NVC W19a *Vaccinium vitis-idaea* - *Deschampsia flexuosa* sub-community (Rodwell, 1991, Averis *et. al.*, 2004). In 1996 with Richard Comley we found two bushes on a trackside bank in Arkengarthdale at Low Faggerrill (NY9705) (Comley *et. al.*, 1998). The published records via www.bsbi.org.uk/maps show few post-1986 records in the north of England while Abbott (2005) only shows it in 10 tetrads of VC64. We have observed both male and female plants at the three sites in the Dales seen since 2009. At Kisdon the Juniper was in grassland (locally NVC CG9) with limestone scree running through it and herbs included Tormentil *Potentilla erecta*, Rock-rose *Helianthemum nummularium*, Bird's-foot-trefoil *Lotus corniculatus*, Primrose *Primula vulgaris*, Heather *Calluna vulgaris*, Quaking Grass *Briza media*, Mouse-eared Hawkweed *Hieracium pilosella*, Blue Moor-grass *Sesleria caerulea* and Mat-grass *Nardus stricta*.

During summer 2013 we visited the Lovely Seat-Stainton Moor SSSI near Low Whitta with Juniper extending over an area of at least 1 sq. km at the northern edge of Unit 5 on a gentle north-facing slope to c.300m and also the Thwaite Stones SSSI, which is a smaller area on a steep southwest-facing slope from the valley bottom up to 480m. On the first site all the Juniper was located east of Browna Gill. Bracken *Pteridium aquilinum* had been treated and there was no regrowth with last year's crop all brown. The grassland was mainly acidic with Wavy Hair-grass *Deschampsia flexuosa*, Sheep's Sorrel *Rumex acetosella*, Heath Bedstraw *Galium saxatile*, Wood Sorrel *Oxalis acetosella*, Thyme *Thymus polytrichus*, Tormentil and scattered Bilberry *Vaccinium myrtillus*, all fitting again into the NVC W19a sub-community.

At Thwaite Stones SSSI the ground flora was mainly Bilberry with nearby Heather, Deer-grass *Trichophorum germanicum*, Heath Bedstraw, Sweet Vernal-grass *Anthoxanthum odoratum*, Tormentil and rare Cow-wheat *Melampyrum pratense*. We did not see Wood Sorrel but the scrub fits the NVC W19a sub-community. On Ingleborough, visited by TMW from 2009 to 2013, the greatest concentration of W19 vegetation is on Moughton in a valley (locally called Juniper Ghyll) running southeast-northwest through Ingleborough SSSI unit 33 and across the watershed to the west onto the more extensive area of unit 82. Most of the Juniper plants are on calcareous *Sesleria albicans*-*Galium sternerii* grassland (NVC CG9) in limestone pavement and on grassland at the edges of acid heathy patches (NVC M15) where exposed limestone abuts the deeper gleyed soils on the glacial drift of the valley bottoms and small solution hollows. It is absent from the very wet boggy areas in the middle of the valleys. The grassland is mainly acidic with Wavy Hair-grass, Heather, Sorrel *Rumex acetosa*, Heath Bedstraw and occasional Tufted Hair-grass *Deschampsia cespitosa*, Wood Sorrel and Hard-fern *Blechnum spicant*; once again the Juniper is the NVC W19a sub-community. On the western part it mainly grows in more calcareous situations with Blue Moor-grass, Sweet Vernal-grass and frequently Common Sedge *Carex nigra*. Green Spleenwort *Asplenium viride* is often associated and occasionally young plants of the rare Holly-fern *Polystichum lonchitis* can be found under the bushes. This is being monitored by BSBI near SD787716 (P.M. Cannaway, pers. comm.). In addition to the Dales records, JAN has also recorded the tree at High Tarn (NY3404) in the Lake District National Park during 2013, where a small number of old bushes were scattered across Bracken and rush pasture. This area was also showing signs of browning.

Fruits were abundant on the Kisdon sites (See Plate V, centre pages) and on the Browna Gill site in 2013 but not a single fruit was seen on the declining Ingleborough sites. Ward (2007, 2010) reports that the seeds may appear intact on the outside but may not be so within. Only 3.7% of 417 40-year old bushes at Porton Down in October 1998 had normal seeds. She reports that the failure may be due to predation, failure of pollination and/or the nutrient status of the bush. JAN collected one dead Juniper twig at Low Whitta with six species of lichen: *Cladonia fimbriata*, *Hypogymnia tubulosa*, *Melanelixia subaurifera*, *Parmelia sulcata*, *Physcia adscendens* and *Pseudevernia furfuracea* (determined by Albert Henderson). One old branch had the moss *Hylocomium splendens* but generally the Juniper

had few epiphytes although with many broken branches and others brown with dead wood. The Scrub Management Handbook (Anon, 2003) lists 45 species of lichen, 63 species of invertebrates (26 of them exclusively) and 11 species of Red Data Book birds that are associated with Juniper. Ward (1977) showed a strong relationship between the sizes of Juniper populations and the diversity of insect fauna. Small Juniper stands, e.g. of ≤ 10 shrubs, are likely to support few Juniper-specific insects unless they are close to large Juniper populations. The larvae of the Ochreous Argent moth *Argyresthia praecocella* feed on the seeds. This is one of seven species of *Argyresthia* moths on the UK list whose larvae live on Juniper, the others making mines in the leaves, buds and twigs. Only three of them have been recorded in Yorkshire. Juniper Argent *A. dilectella* is the most common and, like Triple-barred Argent *A. trifasciata*, is a spreading new arrival, most probably associated with the garden-cultivated Chinese Juniper *Juniperus chinensis*. Gold Juniper Argent *A. aurulentella* occurs in adjacent counties and similarly Downland Argent *A. abdominalis*.

Four Geometrid moths are associated with Juniper including the Juniper Carpet *Thera juniperata*, the Juniper Pug *Eupithecia pusillata* and the Chestnut-coloured Carpet *Thera cognata*, which occur in Yorkshire. The Juniper Carpet is widespread on Chinese Juniper in lowland central Yorkshire but there are few records from the west. The 20+-year old records at Austwick and Malham may have been associated with native Juniper but the only recent record, near Settle by Royanne Wilding, is almost certainly on domestic plantings. Previously there was only a single Yorkshire record of Bronze Argent *Argyresthia arceuthina* and only three of Chestnut-coloured Carpet. The only records of both species in the west were from Austwick over 20 years ago. However the latter was confirmed as resident by TMW while moth trapping for Natural England in the Juniper on nearby Moughton in 2013. Its presence on the Teesdale Juniper has not been confirmed since 1880. Juniper Pug is widespread and common throughout the UK and has increased, associated with garden plantings of Juniper. Its DNA profile has never been investigated and the lowland specimens could be genetically distinct from those from native Juniper sites. The larvae of the rare gelechid Scotch Crest *Dichomeris juniperella* (proposed RDB1) are associated with Juniper, living in tight silk webs the size of golf balls amongst the needles. It has not been recorded in Yorkshire, being confined to the Grampian Mountains in Scotland. In the UK Juniper seeds are killed by several insects and/or mites including the chalcid *Megastigmus bipunctatus*, the Juniper Shieldbug *Cyphostethus tristriatus* and the mite *Trisetacus quadrisetus* which is most easily seen as a slightly swollen and distorted berry with a three-rayed opening with the seeds inside bearing little projections (Redfern and Shirley, 2011). In 2013, bearing in mind that the best estimate was that only one in five bushes appeared to be female at both Low Whitta and Thwaite Stones, most of the female bushes exhibited this mite gall.

All the Juniper areas on Ingleborough are being killed by dieback and *P. austrocedrae* has been confirmed in Juniper Gill and Moughton with devastating consequences for associated species. On a walk-over survey on Moughton in November 2013, TMW estimated that well over 70% of the plants in over 14ha were already dead or moribund (See Plate V, centre pages). Others were showing bronzing of parts of the foliage. How *P. austrocedrae* spreads

is still obscure but it is thought that it can spread through soil and water. Some infected patches of Juniper in the Lake District are often along stream and wet flush lines but on the broken pavements of Moughton such delineation is not obvious. It is probable that much of the Juniper here cannot be saved. If it is not already too late, it is vital that consideration should be given to preserving some of the local populations of rare invertebrates, perhaps by taking them into captive breeding schemes or careful (bio-secure) translocation on to isolated Juniper populations. Anyone accessing Juniper sites should read the FERA leaflet (Anon 2013) and carefully consider and carry out thorough bio-security measures set out there to reduce the risk of the spread of *Phytophthora austrocedrae*.

Acknowledgements

The authors especially wish to thank Dr Lena K. Ward, formerly of CEH Winfrith, who has researched Juniper over very many years for reviewing our paper and making some important additional information available. She has also provided us with a .pdf file of her card index of Yorkshire records, with many extracted from the *Naturalist*. She is quite happy for a serious researcher to see these record cards and enquiries may be made to the authors. Dr Ward is currently making a third revision to the Juniper Biodiversity Action Plan for Plantlife. We also thank Mike Cannaway, Sarah Green, Colin Newlands (NE), Andrew Kirkwood (FERA), YNU and the YDNPA for access to unpublished data.

Bibliography

- Abbott, P.P. (2005) *Plant Atlas of Mid-west Yorkshire*. Yorkshire Naturalists' Union.
- Anon (1996) *UK Biodiversity Group Tranche 2 Action Plans III plants and fungi*. English Nature [Natural England], Peterborough.
- Anon (2001) *National inventory of woodland and trees*. Forestry Commission, Edinburgh: 96pp. Downloads available at: <http://www.forestry.gov.uk/forestry/hcou-54pg9u>
- Anon (2003) *The Scrub Management Handbook, Guidance to the management of scrub on nature conservation sites* (Loose leaf file). Forum for the Application of Conservation Techniques (FACT) English Nature, Wetherby,. [Juniper Section 4.4.28 : 115-118]
- Anon (2007) *Report on Species and Habitats Review*. JNCC, Peterborough. Viewed on line at http://jncc.defra.gov.uk/PDF/UKBAP_Species-HabitatsReview-2007.pdf
- Anon (2013a) *Phytophthora austrocedrae* Forestry Commission
Viewed on line at: <http://www.forestry.gov.uk/forestry/infid-8rajz3>
- Anon (2013b) *FERA Guidance on planting of Juniper in England and Wales in relation to the risk of infection with Phytophthora austrocedrae*, V4.1 (24 Oct 2013), pp 5.
Available on line at:
<http://www.fera.defra.gov.uk/plants/plantHealth/pestsDiseases/documents/phytophthoraJuniperGuidance.pdf>
- Averis, A., Averis, B., Birks, J., Horsfield, D., Thompson, D. and Yeo, M. (2004) *An Illustrated Guide to British Upland Vegetation*. JNCC, Peterborough.
- Bacon, J. Ed. (2003) *The Scrub Management Handbook*. English Nature, Wetherby.
- Backsall, J., Manley, J. and Rebane, M. (2001) *The Upland Management Handbook*. SC 26, English Nature [Natural England], Peterborough.
Available on line at <http://publications.naturalengland.org.uk/publication/82050>
- Cheetham, C.A. (1934) The Juniper Problem. *The Naturalist* 59: 83-84.
- Clifton, S.J., Ranner, D.S. and Ward, L. (1995) *The conservation of Juniper in Northumbria*, *The Naturalist* 139 (2014)

- English Nature Research Reports* 152. English Nature [Natural England].
- Comley, R., Payne, J. and Payne K.G. (1998) YNU Excursions in 1996 Booze in Arkengarthdale. *The Naturalist*, 123, 38-39.
- Corkhill, P. (1998 unpubl. report) *South House Moor – rewilding*. English Nature, Ingleborough NNR, Colt Park Barn.
- Dobson, F.S. (2011) *Lichens*, 6th edn. Richmond Publishing Slough.
- Dearnley, T.C. and Duckett, J.D. (1999) Juniper in the Lake District National Park, review of condition and regeneration. *Watsonia*, 22: 261-267.
- Gilbert, O.L. (1980) Juniper in Upper Teesdale. *J. Ecol.* 68: 1013-1024.
- Graham, F. & Cannon, R. (2011 unpubl.) Horton Quarry Juniper planting proposal, YDNPA.
- Green, S., Hendry, S.J.H., MacAskill, G.A., Laue, B.E. and Steele, H. (2012) Dieback and mortality of *Juniperus communis* in Britain associated with *Phytophthora austrocedrae*. *New Disease Reports*, 26.
- Available on line at: <http://dx.doi.org/10.5197/j.2044-0588.2012.026.002>
- Green, S., Elliot, M. and Hendry, S.J.H. (2013 In prep.) *Phytophthora austrocedrae* emerges as a serious threat to Juniper (*Juniperus communis*).
- Horsefield, D. & Thompson, D.B.A. (1994) The Northern Pennines: an Evaluation of Upland Habitats. *English Nature Research Reports*, 64. [ENRR064] English Nature [Natural England], Peterborough.
- Preston C.D., Pearman D.A. and Dines T.D. (Eds.) (2002) *New Atlas of the British and Irish Flora: An Atlas of the Vascular Plants of Britain, Ireland, The Isle of Man and the Channel Islands*. 922 pp. Oxford University Press; Har/Cdr edn.
- Raatkainen, M. & Ansa, T. (1993) Cone and seed yields of the Juniper (*Juniperus communis*) in southern and central Finland. *Acta botanica fennica*, 149: 27-39.
- Redfern, M and Shirley, P. (2011) *British Plant Galls* [2nd edn.] Field Studies Council, Aidgap guide, Preston Montford.
- Rodwell, J.S. (1991) *British Plant Communities I Woodlands and Scrub*. Cambridge University Press, Cambridge.
- Selman, R., Dodd, F. and Bayes, K. (1999) *A biodiversity audit of Yorkshire and The Humber*. 151 pp. Yorkshire & Humberside Biodiversity Forum, RSPB.
- Ward, L.K. (1977) The conservation of Juniper: The associated fauna with special reference to southern England. *Journal of Applied Ecology* 14: 81-120.
- Ward, L.K. (2003) *Common Juniper - a UK Biodiversity Action Plan*. Plantlife International, Salisbury, UK.
- Ward, L.K. (2007) *UK Biodiversity Action Plan*. United Kingdom. England. Salisbury: Plantlife International, Salisbury, UK.
- Ward, L.K. (2010) Variation in ripening years of seed cones of *Juniperus communis* L., *Watsonia* 28: 11-19.
- Webber, J., Green, S. and Hendry, S. (2012) Guidance on planting of Juniper in England and Wales in relation to the risk of infection with *Phytophthora austrocedrae*.
<http://www.fera.defra.gov.uk/plants/plantHealth/pestsDiseases/documents/phytophthoraAustrocedrae.pdf>
- Wilson, M. and Henderson, D.M. (1966) *British Rust Fungi*. UK, Cambridge; Cambridge University Press.
- Winder, J.S. (1990) *Moughton: A Juniper Survey*, NCC Report : 20pp. [Natural England], Leyburn, North Yorkshire. Unpublished.
- YDNPA (2000) *Nature in the Dales; A biodiversity action plan for the Yorkshire Dales National Park*, Yorkshire Dales National Park Authority, Grassington, Yorkshire.

Plant galls in Swaledale

John Newbould

Stonecroft, 3 Brookmead Close, Sutton Poyntz, Weymouth DT3 6RS.

Tom Higginbottom

5 Spennithorne Road, Skellow, Doncaster DN6 8PF

There is a long tradition of plant gall recording by YNU members in Swaledale, and TH holds the records of the late John Pearson. Over the past five years there have been two VC65 Excursions in the valley, in late July and early August, with reports in *The Naturalist*. JAN has made four recording trips into VC65 between 2009 and 2013, mainly in Swaledale but venturing north to Balderdale and the county boundary along the River Tees at Croft, while some time has been spent in Wensleydale and the Ure valley. In this period a database of c.630 records of galls and related host plants has been accumulated.

The 630 records have been accumulated from 97 1km squares out of a total of 2608 squares in VC65, of which 2330 have more than 75% of their area within the vice-county. The highest number of records in a 1km square is 26 in SE0499 (24 in SE0498). There is some recorder bias here as our accommodation is located in Fremington and there is also some geographical bias in that Fremington is relatively low at 176m. The third best square is the National Trust property at Hudswell Wood (NZ1500) with 22 records. Thwaite (SD8997) and Gunnerside (SD9598) are the highest scorers in the more upland parts with 14 records each. In the associated Arkengarthdale the presence of a number of SSSIs in NY9804 (20 records) and NY9903 (18 records) is a reflection of host species diversity.

The species causing galls are specific to their host plants. The gall causer (be it animal or fungal) must be able to invade and hijack the tissues of its host at precisely the correct stage of the development of each. If the synchronisation fails due to a mismatch of timing then the strategy will fail and the gall causer will not find another host to complete that stage of its life cycle. Therefore, adverse weather delaying plant development can be a factor (Redfern, 2011). For example, the gall *Cecidophyes rouhollahi* on Cleavers *Galium aparine* was found 16 times in 2012 but just once in 2013, when we were in Swaledale at a similar time. It was not seen at all in 2009 or 2011 when we visited in August and Cleavers had died back.

326 of JAN's records relate to gall mites, 79 to gall midges and 65 were fungal galls. In total 61 host plants were recorded of which 23 were trees or shrubs, including six species of willow, and two species of grass both hosting *Aceria tenuis* (at Thwaite in 2011 and Ravenseat in 2012). 107 of the records on trees and shrubs were on Hawthorn, 56 on Alder, 53 on Sycamore, 48 on Ash, 35 on Rowan, 19 on willow and 14 on birch with just 7 records on oak, which is scarce in the upper dale.

Of particular interest are the fungal galls. The Nettle Clustercup rust *Puccinia urticae*, which forms a brown swelling on the stems of Stinging Nettle *Urtica dioica*, was seen eight times

but only in the early July visits in 2012-13. It is usually found in marshy grassland where sedges such as Common Sedge *Carex nigra* or Hairy Sedge *C. hirta* will act as co-hosts (Wilson and Henderson, 1966). Sweet Cicely *Myrrhis odorata* is a common neophyte of roadside verges in the dale but the gall *Puccinia chaerophylli* has only been recorded on two occasions. Alder supports three *Taphrina* fungal galls but JAN only recorded Alder Tongue *Taphrina alni* on catkins at Gunnerside in 2011, whilst TH found *T. sadebeckii* in Rowleth Great Wood at the same time. Another is *Taphrina wiesneri* on Bird Cherry *Prunus padus* whilst the Birch Besom witches' broom on Silver Birch *T. betulina* is scattered across the vice-county. Meadowsweet *Filipendula ulmaria* is a common plant of wet places but the orange rust *Triphragmium ulmariae* is easily overlooked amongst what can be quite dense vegetation, with just two records.

The fungus *Gymnosporangium cornutum* galls the undersides of the leaves of Rowan (see back cover), forming rounded orange-yellow swellings bearing horn-shaped aecia up to 5mm long. According to Dr Margaret Redfern and Dr Brian Spooner (pers. comm.) these galls are most frequent in parts of Scotland and much rarer further south. There are past records by John Pearson from Arkengarthdale and Middleton-in-Teesdale, and more recent ones from the Ballowfields, Wensleydale (2010) while JAN has records from Swaledale in 2013. The alternative fungal host is Juniper and there are colonies in Arkengarthdale, Swaledale and Teesdale. Juniper is also the alternative host for *G. clavariforme* on Hawthorn leaves, although there is only a single record from 2012.

Even though oaks are less common in Swaledale there have been some interesting gall records. By the Coast to Coast footpath at Applegarth, northwest of Richmond, the aptly named Cottonwool Gall *Andricus quercusramuli* has been recorded on oak catkins (see Plate VIII, centre pages). A mass of white hairs up to 30mm across completely obscures the gall chambers. *A. quadrilineatus*, another less common gall on the oak catkins, has been discovered in Arkengarthdale. The midge *Dasineura acrophila* folds an Ash leaflet into a pod shape and has been found in the Richmond area. Mountain Currant grows on the Carboniferous Limestone beside the bridle path along the north bank of the Swale in Richmond. The aphid *Cryptomyzus korschelti* causes reddish thickened patches on the leaves (Plate VIII, centre pages). In a field near Easby Abbey in 1993 the midge *Rhopalomyia millefolii* was discovered forming an ovoid gall in the leaf axil of Yarrow. Wild Thyme is common in the area and the leaves are frequently covered in white cottonwool-like hairs caused by the mite *Aceria thomasi*.

We acknowledge the assistance of Bill Ely and Adrian Norris in helping to find galls during our surveys.

Bibliography:

- Redfern, M. (2011) *Plant Galls*. New Naturalist no 117. Collins, London
Redfern, M. and Shirley, P. (2011) *British Plant Galls* Field Studies Council Aidgap, Preston Montford.
Spooners, B. and Roberts, P. (2005) *Fungi* New Naturalist Library no 96. Collins, London.
Wilson, M. and Henderson, D.M. (1966) *British Rust Fungi* Cambridge University Press, Cambridge.

Progress with the study of *Rubus fuscus* and the *Rubus fruticosus* aggregate in Swaledale and neighbouring districts

David Earl 25 Outram House, St. Mary's Avenue, Walton-le-Dale, Preston, Lancashire, PR5 4UR
email: david.earl@talktalk.net

At a national level the most noteworthy *Rubus* species to be found along Swaledale is *Rubus fuscus*. Until relatively recently this species was only known to occur in two 10km squares in the Richmond area of North-west Yorkshire (VC65) these being SE19 and NZ10. Early voucher specimens of a bramble with bright pink flowers and red-based styles were collected from Billy Bank Wood and Hipswell Lodge by J Ward in 1866 and are held at Manchester Museum (MANCH). Having viewed these specimens at MANCH Alan Newton visited the Richmond area during the early 1970s to trace the bramble collected by Ward. Newton later classified Ward's gatherings as *Rubus fuscus* in 1976. The Richmond population of this bramble is most intriguing as the nearest known population occurs as an isolated record somewhat further south in Nottinghamshire (vc56) with the main British populations occurring in several counties to the north of London (*Newton & Randall* 2004). At an international level the distribution of *Rubus fuscus* is classed as widespread in north-western Europe (*Edees & Newton* 1988).

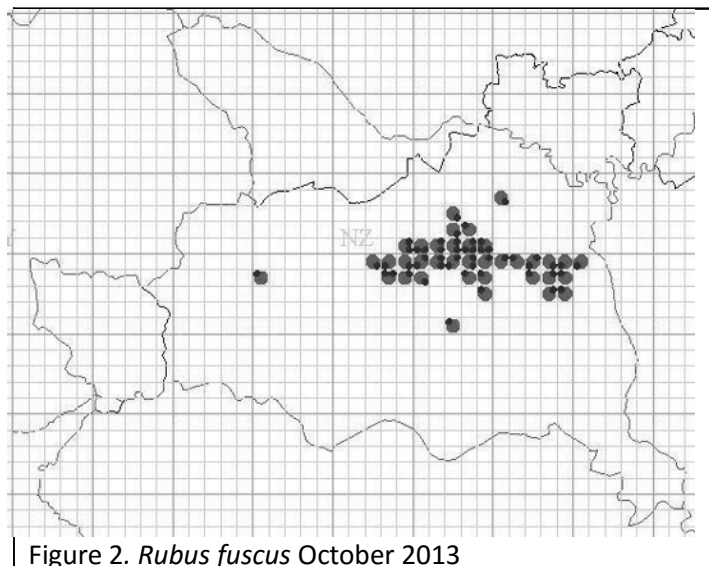
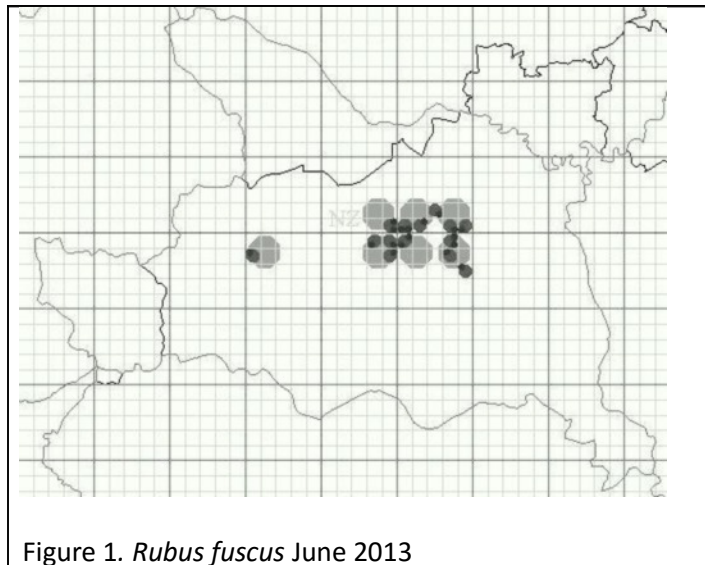
Whilst in the Richmond area in 2003 my wife and I carried out a few bramble forays and were able to find *Rubus fuscus* about Richmond in woods at Rimmington Avenue (NZ1800) and Scotton (SE1895) thereby updating the historic records. Exploration of woods at Catterick Garrison provided a first record for VC65 of *Rubus pallidus*. In addition *Rubus latifolius* was found in a hedgerow by a sand and gravel pit at Scotton (NZ2400) and at Scotch Corner (NZ2005), again new records for VC65.

The opportunity to explore Swaledale further arose again in 2012 when efforts were made to find *Rubus fuscus* in some additional 10km squares. The obvious places to look were the woods along the valley with populations being discovered to the west of Richmond within NZ00 at Marske and within SE09 at Stainton Woods and Reels Head. The big surprise was a population a considerable distance to the west within SD99 by the river at Muker (SD9097).

During 2013 more extensive explorations along Swaledale were carried out. The emphasis was mainly that of tetrad recording for *Rubus fuscus*. To the west of Brompton-on-Swale a continuity of records at the tetrad level is now known to extend from the banks of the River Swale at Fremington (SE0598) to Colburn (SE1999) with some strong populations occurring along wooded lanes and in plantations above the Swaledale valley particularly about Vicars Green and between Richmond Out Moor and Gilling Wood (NZ1504). No additional sites were discovered between Fremington and Muker.

The main discoveries were however to the east of Richmond in SE29 with scattered populations occurring close to the River Swale from Brompton-on-Swale to Catterick and a

major population occurring in the woods and lanes about Kirkby Fleetham and Kiplin. A few plants were also found within SE39 along a wood border at Streetlam (SE3098). Several visits were made to locations between Swaledale and Teesdale but *Rubus fuscus* was only found at a new northern limit within NZ20 along a roadside at Middleton (NZ2106). The most southern known location for *Rubus fuscus* in VC65 is a wood border at The Wham (SE1491). Figures 1 and 2 show the improvement in our knowledge of *R.fuscus* distribution in VC65 between June and October 2013.



Additional *Rubus* discoveries were also made whilst in Swaledale. New records for VC65 include a good population of *Rubus mucronulatus* at Fatten Hill Plantation (SE2798); *Rubus bartonii* on a wood stream bank at Catterick Garrison (SE1897, DP Earl & E Pickles); *Rubus halsteadensis* first found at Kirkby Fleetham Hall (SE2795) and later found by the river banks at Brompton-on-Swale (SE2199). *Rubus lanaticaulis* may also have been found at Reeth (SE0399) but this record requires confirmation.

It is intended that further visits will be made to the Swaledale area during 2014 and that a further article on recent *Rubus* discoveries in Yorkshire will also be compiled.

A Review of the Molluscs collected on field trips to VC65 between 2009 and 2013

Adrian Norris

email: AdrianXNorris@aol.com

These trips occurred in July 2009, August 2011, July 2012 and July 2013, the trip in 2010 being in association with the NFBR conference held in Windermere. An examination of these records suggest that many species are very local and hard to locate with eleven of them being recorded only once during the four years: Point Snail *Acicula fusca*, Southern Garden Slug *Arion hortensis* s.s., Euconulus *alderi*, Lapidary Snail *Helicigona lapicida*, Yellow Slug *Limacus flavus*, Glossy Glass Snail *Oxychilus navarricus helveticus*, Keeled Slug *Tandonia sowerbyi*, Pfeiffer's Amber Snail *Oxyloma elegans*, Marsh Whorl Snail *Vertigo antivertigo* and Wall Whorl Snail *V. pusilla*. A further four were recorded only twice: Prickly Snail *Acanthinula aculeata*, Irish Yellow Slug *Limacus maculatus*, Draparnaud's Glass Snail *Oxychilus draparnaudi* and Ash-black Slug, although the latter may consist of more than one species. Three-toothed Moss Snail and Durham Slug *Arion flagellus* were only recorded three times each; Clear Glass Snail *Aegopinella pura*, Wrinkled Snail *Candidula intersecta* and Striated Whorl Snail *Vertigo substriata* on four occasions; Large Amber Snail *Succinea putris* and Eccentric Grass Snail *Vallonia excentrica* on five occasions; Budapest Slug *Tandonia budapestensis*, Toothless Chrysalis Snail *Columella edentula* and Common Whorl Snail *Vertigo pygmaea* on six occasions and Short-toothed Herald Snail *Carychium minimum* and Dwarf Snail *Punctum pygmaeum* on seven occasions.

Some of these are genuinely rare in Yorkshire. The Southern Garden Slug is a segregate which appears to be very uncommon in Yorkshire with most old records now disregarded. Others such as Yellow Slug are rarely found during the day and may be far more common than this survey indicates. A lack of their specific habitat requirements may have caused the lack of records of the glass snail *Euconulus alderi*, Pfeiffer's Amber Snail, Wrinkled Snail and Short-toothed Herald Snail. Wrinkled Snail requires dry sandy habitats and was almost

always found close to old railway lines whilst all the others are marginal snails of wet habitats. Some, such as Durham Slug, have only recently reached into Yorkshire and are still spreading out through our countryside whilst others, such as Budapest Slug, have been known for over eighty years and yet are only found close to human disturbance.

The most common molluscs were Smooth Glass Snail *Aegopinella nitidula*, Great Black Slug *Arion ater* both *agg.* and *seg.*, Dotted Slug *A. circumscriptus*, Common Garden Slug *A. distinctus*, Hedgehog Slug *A. intermedius*, Dusky Slug *A. subfuscus*, *Balea heydeni*, White-lipped Snail *Cepaea hortensis*, Slippery Moss Snail *Cochlicopa lubrica*, Netted Slug *Deroceras reticulatum*, Rounded Snail *Discus rotundatus*, Common Chrysalis Snail *Lauria cylindracea*, Garlic Snail *Oxychilus alliarius*, Hairy Snail *Trochulus hispidus* and Strawberry Snail *Trochulus striolatus*. The most common was Netted Slug with 118 records.

The Nature Reserve at the Hudswell Woods complex, in particular Billy Bank Wood (NZ1600) and Calfhill Wood (NZ1500), produced a number of rarities on 14.07.2012 including Point Snail, Three-toothed Moss Snail, Plaited Door Snail, Dwarf Snail, Ash-black Slug and Southern Garden Slug. Clapgate Gill (NZ115023) on 02.07.2013 produced live specimens of Lapidary Snail and the scarce Craven Door Snail *Clausilia dubia*. Croft-on-Tees (NZ2810 & NZ2809) produced specimens of Large Amber Snail at several sites on 14.07.2012.

Gunnerside Gill (SD9598 & SD959) on 13.08.2011 produced Yellow Slug very close to an old building at the foot of the gill at SD95089833 while further up the Gill we recorded Prickly Snail, Silver Slug *Arion silvaticus*, Craven Door Snail, Plaited Door Snail, Toothless Chrysalis Snail and Striated Whorl Snail. Three-toothed Moss Snail, Toothless Chrysalis Snail, Common Whorl Snail and Striated Whorl Snail were also recorded at this site (SD94799776) on 24.07.2009, as was a possible Ash-black Slug at SD94559911. A specimen of the latter was forwarded to a specialist on this group who stated that it was new but, as yet, no name has been produced.

Ivelet, Swaledale (SD93559828) on 24.07.2009 produced Dwarf Snail, Marsh Whorl Snail and Common Whorl Snail. The area surrounding Keld (NY8900, NY8901 and SD8999) on 25.07.2009 produced Pfeiffer's Amber Snail, Dwarf Snail and Large Amber Snail as well as the rare Wall Whorl Snail, which was recorded on a wall at Keld (NY89550105). Langthwaite Scar (NZ00510236) on 12.08.2011 had Glossy Glass Snail. Moss Bridge on the A684 (SD82639229) produced the only specimen of *Euconulus alderi* on 05.07.2013. The B6270 near Muker (SD924975) on 13.07.2012 had Three-toothed Moss Snail. Reeth Village Green (SE039991) produced large numbers of Eccentric Grass Snail along with Keeled Slug and Draparnaud's Glass Snail on 14.08.2011. Stang Forest (NZ023084) on 12.07.2012 turned up specimens of Dwarf Snail, Common Whorl Snail and Striated Whorl Snail. Thornborough Henge (SE285791) produced specimens of Eccentric Grass Snail and Common Whorl Snail on 06.07.2013. Thwaite (SD882980) on 03.07.2013 had Irish Yellow Slug and Common Whorl Snail whilst Thwaite Stones also produced Large Amber Snail and Silver Slug.

From these four trips we (David Lindley, Terry Crawford, Tony and Moira Wardhaugh and myself) recorded 1,493 records of 64 species of mollusc.

Hudswell Wood, Richmond, North Yorkshire

John Newbould¹, Adrian Norris² and Seb Mankelow³

¹email: johna72newbould@yahoo.co.uk

²email: adrianxnorris@aol.com

³National Trust ranger

Introduction

Hudswell Wood and the associated Hag Wood are owned by The National Trust, which has undertaken a number of nature conservation evaluations over the years. Reports relevant to these woods are Usher & Priest (1977), Scruby & Alexander (1987) and Hewins & Foster (1999). In addition, there have been contributions by Roy Crossley (1992,1993) and Alan Legg through his series of mycological reports published in *Bulletins of The YNU* 1993-2002. The National Trust aims to update its conservation evaluations on a twelve-year rolling cycle but, with a small bio-survey team based at Swindon and nearly 900 properties throughout England, Wales and Northern Ireland, this target is hard to meet.

Key features and species of nature conservation value.

BAP habitats present:

- Rivers and Streams: the River Swale forms the northern boundary with breeding Kingfisher *Alcedo atthis* and feeding Spotted Flycatcher *Muscicapa striata*.
- Boundary and Linear Features: the meadows have unmanaged hedges. Broad-leaved, Mixed and Yew Woodlands: a large extent of lowland mixed deciduous woodland with a history of woodland cover which has not changed since the 1st edition of the OS map in 1857, part of a series of woods in the lower Swale valley. The important plants include Large-leaved Lime *Tilia platyphyllos*, considered to be native here by Usher and close to its northern limit, Alpine Currant *Ribes alpinum* with Wood Barley *Hordelymus europaeus* in Calfhall Wood but Globeflower *Trollius europaeus* is no longer present in Hag Wood. There is woodland edge habitat on the river bank.
- Calcareous and Neutral Grassland: includes Greater Burnet *Sanguisorbia officinalis*. Prickly Sedge *Carex muricata* ssp. *muricata* (near threatened) is reported from the property but we did not trace it in 2013.
- Inland Rock: numerous limestone crags hidden amongst the woodland with crevices; shingle on the south bank of the River Swale is important for scarce invertebrates.

Mammals

A data search from the North and East Yorkshire Ecological Data Centre reported the presence of both Otter *Lutra lutra* and Water Vole *Avicola terrestris* on the Swale. The area may well provide good habitat for bats with crevices in the limestone crags and numerous old trees. The National Trust organised a bat survey at Hudswell Wood in August 2013 and reported Noctule *Nyctalus noctula*, Daubenton's *Myotis daubentoni*, Soprano Pipistrelle *Pipistrellus pygmaeus* and Common Pipistrelle *P. pipistrellus* (Tim Bailey pers. comm.).

Birds Seb Mankelow

Eight red-listed birds (Eaton *et al.* 2009) have been reported from the property together with a number of amber-listed ones. Six are on the UK BAP priority list. JAN recorded a single Yellow Wagtail *Motacilla flava flavissima* just below Hudswell Bank in July 2012. SM reported about eight pairs of Marsh Tit *Poecile palustris* in 2013. This bird, described by Thomas (2013) as preferring mature broad-leaved woodland, is an uncommon resident. Red-listed thrushes are present in good numbers including Song Thrush *Turdus philomelos* and wintering Fieldfare *T. pilaris* and Redwing *T. iliacus* along with the amber-listed Mistle Thrush *T. viscivorus*. Birds breeding in the vicinity of the river include Dipper *Cinclus cinclus*, Kingfisher (bred by the footbridge in 2013), Goosander *Mergus merganser*, Common Sandpiper *Actitis hypoleucos*, Sand Martin *Riparia riparia*, Grey Wagtail *Motacilla cinerea* and Pied Wagtail *M. alba yarrellii*.

The usual woodland/garden birds are well represented. Bullfinch *Pyrrhula pyrrhula* (an amber-listed BAP species) seems to have been very successful in 2013 with several fledged families being observed. There are certainly 2 or 3 resident pairs on the site, increasing to small flocks of 4 or 5 birds in the winter. Nuthatch *Sitta europaea* appears to be increasing and good numbers of Tree Creeper *Certhia familiaris* are also present. All three woodpeckers were resident although there have been no records of Lesser Spotted since the 2011/2012 winter (it was not reported by Thomas (*loc. cit.*) for VC65 and is declining nationally).

Summer visitors include the usual warblers: Willow Warbler *Phylloscopus trochilus*, Chiffchaff *P. collybita*, Garden Warbler *Sylvia borin*, Blackcap *S. atricapilla* and occasional passage Sedge Warbler *Acrocephalus schoenobaenus* in the river scrub. Spotted Flycatcher was seen feeding over the River Swale during the YNU survey with several pairs reported by SM around Calfhall Wood. Pied Flycatcher *Ficedula hypoleuca* is becoming increasingly uncommon (Thomas *loc. cit.*) but pairs breed several kilometres upstream of Hudswell Woods and may be encouraged on to the site with a recently established bird box scheme. Redstart *Phoenicurus phoenicurus* is seen occasionally on the southern edge of the site but seems to move on to breed. Swifts *Apus apus* and Swallows *Hirundo rustica* were feeding over the river and grassland during the YNU survey.

There is much Tawny Owl *Strix aluco* activity in the woodland areas; Sparrowhawk *Accipiter nisus* breeds in Calfhall Wood and Kestrel *Falco tinnunculus* feeds on riverside meadows.

Raven *Corvus corax* occasionally visits the trees favoured by Jackdaw *C. monedula* in Round Howe Wood.

Winter visitors include: Siskin *Carduelis spinus*, Lesser Redpoll *C. cabaret* and Brambling *Fringilla montifringilla*. Numbers of Woodcock *Scolopax rusticola* increase in the winter with birds frequenting the dense wet areas; five were observed one morning in spring 2013 making the most of wet soil/melting snow. Crossbill *Loxia curvirostra* is also an irregular winter visitor.

Mollusca Adrian Norris, David Lindley and Terry Crawford.

Lesser Bullin *Merdigera obscura* (previously known as *Ena obscura*) and Brown Snail *Zenobiella subrufescens* had been recorded in 1987 but were not re-found on the YNU survey. The former is known to be locally distributed, can be very scarce and is rarely found in numbers. It is not known as a 'boom and bust' species but may have been down in numbers at the time of our visit. The latter is a late summer/autumn snail which may have been young and difficult to find.

The most important molluscs that we did find were single examples of Three-toothed Moss Snail *Azeca goodalli* (Billy Bank Wood) which is fairly rare in Yorkshire while Ash-black Slug *Limax cinereoniger* (Calfhall Wood) is fairly common and widespread in old/ancient woodland. The former lives in damp moss in fairly open woodland, thus is usually found at the edges of woods often open to the sun. The latter is usually found under/in/close to old fallen logs. Several species of 'Ash-black Slug' may be found to occur in Britain and a closer study of all its records may be required.

Other old woodland molluscs were also located, including Plaited Door Snail *Cochlodina laminata* and several introduced pests including Worm Slug *Boettgerilla pallens*, Budapest Slug *Tandonia budapestensis* and Common Garden Snail *Cornu aspersum*. Only two species were located in the river: River Limpet *Ancylus fluviatilis* and Horny Orb Mussel *Sphaerium corneum*.

Lepidoptera

During the survey on 4th July, 2013 we noted three butterflies: Large Skipper *Ochlodes sylvanus*, Ringlet *Aphantopus hyperantus* and Speckled Wood *Pararge aegeria*. In early August 2013 there was an unconfirmed report of White-letter Hairstreak *Satyrrium w-album* from the car park. During the July survey Terry Crawford noted over 30 Chimney-sweeper moths *Odezia atrata*.

Plant Galls John Newbould

38 invertebrate plant galls were recorded in July 2012-13. *Aceria fraxinicola* on Ash is not featured on the NBN Gateway at all but was recorded in Swaledale in 2012. Cherry Gall *Cynips quercusfolii* is not on the NBN Gateway from Watsonian Yorkshire north of South Yorkshire but *Cynips* galls have not appeared much during the past five years, though they

have shown up in Yorkshire and elsewhere in 2013. The sawfly *Pontania (Eupatonia) herbaceae*, found on Goat Willow *Salix caprea* by the river in 2013, is an upland gall-causer described by Redfern & Shirley (2011) as common but the only UK records on the Gateway are in Scotland.

Broad-leaved woodland

The property has a number of woodland compartments including: Billy Bank Wood, Round Howe, Round Howe Wood, Calfhall Wood and Hudswell Banks.

Billy Bank Wood John Newbould and David Earl

This wood is located at the eastern end of the property in NZ1600 on a north-facing slope with a rock exposure with the potential for bat roosts in the holes. There is a circular path around the wood but care is needed in wet weather due to rock outcrops on the path. The north boundary is the river.

The wood is mainly Ash–Sycamore–Wych Elm woodland with Large-leaved Lime (Hemsley, 1982). Alpine Currant forms an extensive shrub layer to the south of the upper path but Gooseberry *Ribes uva-crispa* is scarce. There is an occasional Yew *Taxus baccata* with an extensive shrub layer of Wych Elm *Ulmus glabra* re-growth; Hawthorn *Crataegus monogyna*, Hazel *Corylus avellana* (scarce), Holly *Ilex aquifolia* and occasional Elder *Sambucus nigra* with Field Maple *Acer campestre* (scarce) also present in the shrub layer. In areas of bare ground there were numerous Sycamore *Acer pseudoplatanus* leaves and Wych Elm seeds. However, these seeds rapidly lose viability but germinate better in low light (Grime *et al.* 2007). Bird Cherry *Prunus padus* is rare and some Beech *Fagus sylvatica* and larches have been introduced. Dead wood is scattered through the wood. Wet flushes within the woodland contain Opposite-leaved Golden-saxifrage *Chrysosplenium oppositifolium*, Wavy Bitter-cress *Cardamine flexuosa* with Marsh Hawk's-beard *Crepis paludosa* in a flush by the river. There is Alder woodland adjacent to the river. The woodland forms typical NVC community W8f.

The ground flora is mainly Ramsons *Allium ursinum* with Tufted Hair-grass *Deschampsia cespitosa*, Wood False-brome *Brachypodium sylvaticum* (rare), Bearded Couch *Elymus caninus* and Giant Fescue *Festuca gigantea*. Nettle *Urtica dioica* and bramble *Rubus fruticosus* agg. occur mainly where elm has died back. Hard Shield-fern *Polystichum aculeatum*, Soft Shield-fern *P. setiferum*, Male Fern *Dryopteris affinis*, Common Buckler-fern *D. dilatata* and Hart's-tongue *Phyllitis scolopendrium* are scattered throughout the wood but always scarce. Great Wood-rush *Luzula sylvatica* found by Usher in 1977 is still present.

Woodland specialities include Wood-sedge *Carex sylvatica*, Bluebell *Hyacinthoides non-scripta*, Woodruff *Galium odoratum*, Dog's Mercury *Mercurialis perennis*, Wood Speedwell *Veronica montana* and Wood Sorrel *Oxalis acetosella*. Usher described this area as also containing Wood Crane's-bill *Geranium sylvaticum*. David Evans recorded Giant Bellflower *Campanula latifolia*, a northern plant, and Deadly Nightshade *Atropa belladonna*.

Crossley (1992, 1993) reported nine scarce flies from along the woodland edge bordering the river, some associated with damp woodland, others with river edges. Most are small dance flies and amongst the more notable were *Platypalpus cothurnatus* and *P. subtilis*. He also recorded the nationally scarce Lime Beetle *Stenostola dubia*, a longhorn which is almost exclusively associated with mature limes, the larvae boring in the smaller branches.

Grassland John Newbould

The property contains some significant areas of unimproved grassland, though sometimes coarse and scrub-invaded. These are an important wildlife habitat, mainly located in the eastern portion of the site and well used by visitors, and as such are a valuable feature of the property. Although located in the flat flood plain they rarely flood. There are a number of old hedges forming field boundaries which have not been managed. Adjacent to the river is mainly scrub but a small number of open areas have sand and shingle, forming important invertebrate habitat. There has been a considerable deterioration in grassland habitat since 1977 which is presently being addressed in conjunction with a Buglife project *Bugs alive*, sponsored here by the SITA landfill trust.

Grassland east of Round Howe (NZ1600)

A large area of rank grassland east of NZ161009 had been recently cut and raked off, leaving few herbs. The riverbank had been substantially eroded at NZ163009, following the heavy rainfall in 2012. There is a north-south hedge with a northerly locus NZ161008 consisting of Hazel, Hawthorn, Ash, Blackthorn *Prunus spinosus*, bramble, Wych Elm and Elder with Nettle and Rosebay Willowherb *Chamerion angustifolium* with Dog's Mercury in places.

Alder *Alnus glutinosa* is common by the river and nearby is one Butterfly Bush *Buddleja davidii* with a small amount of Gorse *Ulex europaeus*. Butterfly Bush is an alien which should be monitored. Although excellent for late summer butterflies it spreads and can easily become a pest.

The grassland is really dominated by the coarse MG1 community of False Oat-grass *Arrhenatherum elatius* and its allies. However, herbs such as Common Knapweed *Centaurea nigra*, rare Foxglove *Digitalis purpurea* by woody vegetation, Common Cat's-ear *Hypochaeris radicata*, Restharrow *Ononis repens*, Greater Burnet, Lady's Bedstraw *Galium verum*, White and Purple Clovers *Trifolium repens* and *T. purpureum* are still present. By the river banks the herb vegetation is richer with Meadow Crane's-bill *Geranium pratense*, Meadowsweet *Filipendula ulmaria* and Marsh Hawk's-beard *Crepis paludosa* in damper places. Although Meadow Crane's-bill and Greater Burnet are both essentially lowland plants, they may be found in the Pennine uplands (Peterken, 2013).

A broken hedgerow with a standard Ash together with Elder and Hawthorn stands on a shallow bank with a north-south orientation starting from a locus of NZ162009. The ox-bow of the River Swale sweeps south-east here with a shingle and sandy bank adjoining the field with a potential for riverside invertebrates.

References

- Crossley, R. (1992) *Hudswell Woods, North Yorkshire. Entomological Survey 1992*. Report to the National Trust.
- Crossley, R. (1993) *Hudswell Woods, North Yorkshire. Entomological Survey 1993*. Report to the National Trust.
- Eaton, M A , Brown, A.F., Noble, D.G., Musgrove, A.J., Hearn, R., Aebischer, N.J., Gibbons, D.W., Evans, A. & Gregory, R.D. (2009) Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds* 102, 296–341
- Grime, J.P., Hodgson, J.P. & Hunt, R. (2007) *Comparative Plant Ecology*. Second edition, Castlepoint Press, Dalbeattie
- Hemsley, J. (1982) Distribution map of large-leaved lime at Hudswell. Unpublished.
- Hewins, E.J. & Foster, A.P. (1999) *Hudswell North Yorkshire. National Trust Biological Survey*. Unpublished.
- Legg, A.W. *et al.*, (1993-2002) Fungi records from VC65. Extracted from the *Bulletin of the YNU*.
- Legg A.W. (1993) BMS day foray report: Hudswell Woods, Richmond, North Yorkshire 10 October 1992. *The Mycologist*, 7, p99
- Peterken, G.F. (2013) *Meadows*. Gillingham, British Wildlife Publishing
- Redfern, M. & Shirley, P. (2011) *British Plant Galls*, 2nd edn Preston Montford, Field Studies Council Aidgap guide.
- Rodwell, J. (1991-2000) *British Plant Communities I-V*, Cambridge, Cambridge University Press.
- Scruby, M. & Alexander, K. (1987) *Hudswell North Yorkshire. National Trust Biological Survey*. Unpublished.
- Thomas, C.C. (ed.) (2013) *Yorkshire Bird Report 2011*. Yorkshire Naturalists' Union, York.
- Usher, M.B. & Priest, S.N. (1977) *Survey of National Trust properties for their wildlife conservation importance*. Dept. Biol., Univ. York.

Helen Kirk BEM

In the 2013 New Years Honours list YNU member Helen Kirk, volunteer Executive Secretary of the Thorne and Hatfield Moors Conservation Forum, was awarded the British Empire Medal for services to Conservation.

The investiture, performed by the Lord Lieutenant of South Yorkshire, David Moody, took place on 4 October 2013 on the remote, wild and windswept landscape of Thorne Moors, in the Humberhead levels, near Doncaster. The event, attended by friends from Conservation, Natural History and Community organisations, was hosted by Natural England with Ian Carstairs of the Carstairs Conservation Trust acting as master of ceremonies.

Following Helen's Investiture Caroline Flint, MP for the Don Valley, and Craig Bennett, Director of Policy and Campaigns for Friends of the Earth, spoke of their recollections of working with Helen in the battle to safeguard our threatened peatland and its wildlife.

CAH

Book Review

Feral – Searching for enchantment on the frontiers of rewilding by George Monbiot 2013.
Pp317. Published by Allen Lane, London

Landscape-scale conservation initiatives, like the Great Fen project and Natural England's Nature Improvement Areas, are increasingly seen as a necessary component in the armoury to protect and enhance our biodiversity. George Monbiot's book, *Feral*, argues for what some would consider is the logical conclusion to this process, re-wilding. When applying this to ecosystems, he is not concerned with restoring them to some kind of prior, 'natural' state but permitting ecological processes to resume unhindered, as far as possible. He also advocates 'rewilding of human life', not, he emphatically states, by shedding civilization but providing greater opportunities for people to reconnect with and experience real nature.

Monbiot's book is a rather unconventional mix of academic discussion and autobiographical narrative, the latter written in vivid, and sometimes quite poetic, prose. The former is supported by quite an extensive and diverse list of references, although, interestingly, he doesn't use the mounting body of evidence for the psychological benefits of contact with nature in support of the re-wilding of human life. Nonetheless, one among many of the interesting ideas he discusses is the suggestion that the ability of many of our native broadleaved trees to re-shoot from the ground when trunks are 'removed' (allowing the practice of coppicing) was an adaptation allowing them to survive the impact of the straight-tusked elephant before it became extinct in Europe about 40,000 years ago. He argues strongly for the re-introduction of equivalent large mammals, including carnivores like the wolf and lynx, to facilitate the kind of ecosystem processes that occurred before such species disappeared. He supports this partly through the concept of keystone species, those that have a larger impact upon their environment than numbers alone would suggest. He also muses on the trophic cascade concept, whereby fauna at the top of a food chain 'can transform the places in which they live', changing many biotic and abiotic components of the ecosystem.

There is little direct reference to Yorkshire, apart from using the catching of Bluefin tuna, up to 850lbs in weight, off the Scarborough coast in the 1930s, as an illustration of what has happened to the marine environment in the second half of the 20th century. However, some of his pet ambitions could certainly be applied to the Yorkshire uplands, particularly his desire for the removal of European-subsidised sheep from his beloved Cambrian mountains to allow natural re-vegetation to occur, an idea which has recently gained traction elsewhere as part of a suggested landscape management strategy to alleviate the kinds of disastrous floods we have experienced this winter.

I found the book very easy to read and was frequently quite enthralled to find out what the next chapter contained. It won't be to everyone's taste but it certainly has some stimulating ideas and is undoubtedly thought-provoking.

AM

Obituary: Douglas Turnbull Richardson, C.Chem., M.R.S.C. (29.03.1919 – 13.12.2013)

Douglas was born in Thornton, Bradford, Yorkshire, the son of Alfred William Richardson, a Master Cabinet Maker. His training as an apprentice to the City of Bradford Public Analyst began in 1936 but was interrupted by World War II, in which he served as a laboratory Petty Officer in the Royal Navy, specialising in pathology and parasitology.

On return to civilian life he had a brief spell back at Bradford Technical College where, on St Valentine's Day 1946, the laboratory superintendent introduced him to a young lady called Marion, who was experiencing her first day in the chemistry department stores, and told him to look after her. He obeyed the order in full and they married in January 1948. He spent the next decade as senior quality control chemist at one of Bradford's leading wool combing organisations. This was followed by a decade as chief chemist of a specialist filtration firm with connections with the brewing, wine, spirit and pharmaceutical trades, a job which took him round the world on all manner of trouble-shooting missions. It was during this period that he achieved his schoolboy ambition and was elected an Associate of the Royal Institute of Chemistry. After a series of other posts, and still with 14 years to retirement, he became analyst to the Reader in Mineralogy, Department of Earth Sciences, University of Leeds. Douglas revelled in working with academic staff looking at all manner of exciting strategically important minerals: uranium, tungsten, tantalum, gold, platinum, rare earths and diamonds, to mention but a few.

Douglas's background subsequently took him into the fields of caving and researching the local lead mines. This wasn't a simple fascination with underground adventure but a serious interest in surveying the network of local caves and discovering the flora and fauna which inhabited these dark spaces. In 1954 he was a founding member of the White Rose Pothole Club, which still thrives and is now one of the top three potholing societies in the United Kingdom. He was also a co-founder of the Northern Cavern and Mine Research Society which is also still going strong and has gained international recognition under the title Northern Mine Research Society.

Like many with an active mind and passionate interests, retirement meant a flourish of activity in all those pursuits previously suppressed by the need to earn a living. He had always loved nature, a passion he shared with his father who first fostered his interest and which he took great delight in sharing with others. He joined the Yorkshire Naturalists' Union in 1973 and his commitment was soon noticed. He became Convener of the Other Arthropods Committee in 1984 and stayed in that post until 1996 but remained as Recorder for several groups. In 1984 he also became a joint editor of the *Bulletin of the YNU*. Always interested in combining his many skills he threw himself into recording the distribution of invertebrates, in particular woodlice, centipedes, millipedes, harvestmen, leeches and freshwater flatworms, and for ten years he ran the National Millipede Recording Scheme. This resulted in a complete survey of the county and the establishment of the distribution schemes for these groups, as well as many other similar organisms which he placed firmly

on the map.

Over the years he built up large collections of invertebrates which he presented to the Leeds City Museum in 1975. The bulk of this material is preserved in spirit and is the basis for the field records for Yorkshire. Douglas also worked on the Leeds City Museum's collections of microscope slides, documenting and restoring them and noting many rare and valuable examples. In April 2009 at the age of 90, following a setback in health, he took the decision to downsize much of his home laboratory and, after consultation with several museums and societies, donated his collection of 1000+ sand slides, accompanying bulk specimens, collections of colour transparencies and photographic prints to the Northamptonshire Natural History Society. His expertise in all fields ensured that all of his collections presented to these recipients were fully documented and outstanding both in the form of documentation and in the detail supplied to augment their scientific value.

Douglas was a leading figure in a number of local, county and national natural history and microscopy societies, founder of the Cross Hills Naturalists' Society microscope group and a long-standing member of the Craven Naturalists' and Scientific Association, which he joined in 1960. He was an active participant in and great supporter of the Postal Microscopical Society, with whose members he shared his slides and images, designed the postal box used by the society for over 20 years and he was awarded Honorary Life Membership in 1998. Douglas also had many associations with other microscopical societies around the country, such as Leeds and Manchester.

Always willing to help, Douglas assisted in many publications, both his own and with other associates, bringing his knowledge as an analytical chemist and using his skills to develop a method for testing for water hardness and pH. I first came across Douglas in the early 1970s, soon after he started work at Leeds University and just a few years after I started at the Leeds City Museum. With Paul Lee and others we were able to make many interesting invertebrate additions to the county. In recent years both Douglas and I became very interested in the work undertaken by teams from Malham Tarn Field Centre. His latest venture was investigating the natural history of Cowside, Darnbrook and Thoragill Becks at Arncliffe, which rejuvenated his interest in water analysis as well as aquatic invertebrate identification. His work was outstanding and he has left a rich legacy for others to follow.

Douglas leaves his wife Marion and two children, Barbara and Bernard. Whether it is nature or nurture we are not sure but those skills and enthusiasms seem to have passed down the generations. His four grandchildren have grown up to be a civil engineer, a biologist, a chemist and an acoustical engineer. We wait to see if his great-grandson, baby Matthew, grows up in a similar vein. Douglas died in his sleep on the morning of the 13th of December 2013 at Manorlands Hospice near Keighley, at the age of 94. His cremation took place on Monday 23rd December 2013 at Skipton Crematorium.

AN

YNU Excursions 2014

Circular No. 885

Divisional Secretary VC62: Mike Carroll, 10 Crofts Avenue, Pickering, YO18 7HP
Tel: 01751 476550; e-mail: Mickcarroll47@btinternet.com

The VC62 meeting will be to **Forge Valley near Scarborough on Saturday 17 May.**

Maps: 1:50,000 OS Map 101 (Scarborough, Bridlington & Filey)
1:25,000 Explorer OL27 (North York Moors, Eastern area)

Meeting place: Parking is limited within the valley but the meeting place for registration and health and safety information will be in the central car park at SE984871 at 10am.

There are three car parks in Forge Valley. Sieve Gate Gill car park is at the East Ayton end of Forge Valley (SE989858) with the remains of a limestone quarry on the right hand side. Going north up the valley the next car park is a fairly large one on the left at SE984871; the last, with the bird feeders, is also on the left at SE983874. There is a further car park round the corner on the low road into Raincliffe Woods at SE985876.

Indoor Meeting: West Ayton Village Hall will be open from 4pm for tea and cakes and reports from the sections. The hall is just off the A170 before the turn to Forge Valley on the left hand side. The contact for the Village Hall is Joy Tomlinson on 01723 862170.

The area: It is over 10 years since the YNU last visited the area and several changes have happened or are about to happen. Discussions are taking place to transfer day-to-day management of the adjoining Raincliffe Woods from Scarborough Borough Council to a local charitable trust. The main area of Forge Valley is now managed by Fallon Mahon and his team at Natural England, and they require more up to date information on the flora and fauna of the valley. It is over 60 years since the Scarborough Naturalists' Society published *The Natural History of the Scarborough District*, edited by G.B. Walsh & F.C. Rimington, and many alterations and additions to our knowledge of the area have been made since.

The western side of the River Derwent has had a wooden walkway running most of the length of the valley for many years but the West Ayton end has never had access to this walkway from the eastern side of the River. Some discussion has taken place about a bridge across the River at the weir opposite Sieve Gate Gill to access the walkway or that the walkway should be replaced or even removed, which would make the western side almost inaccessible due to the marshy nature of the area. The access paths into the forest from the northern bridge have had to be repaired and the wet woodland was drained to allow this work. Recent studies noted that this has had a drastic effect on the flora and fauna as well as the development of tufa in this very wet area.

Circular No. 886

Divisional Secretary VC63: Joyce Simmons, 16 Springfield Crescent, Kirk Smeaton, Pontefract, WF8 3LE. Tel: 01977 620725; e-mail: joyce@gentian.plus.com

The VC63 excursion will be to **Thorpe Marsh YWT Nature Reserve on Saturday 14 June.**

Maps: 1:50,000 Landranger sheet 111 (Sheffield & Doncaster)

1:25,000 Explorer sheet 279 (Doncaster)

Meeting Place: Meet at the entrance to the Thorpe Marsh Nature Reserve (SE595808) 10-10.30am. The gate is kept locked, so please be there before 10.30am (or inform me if you will be late). Most cars will be parked inside the locked gate and then some cars can be shared for the half-mile drive into the reserve for those who wish to travel to the centre (SE587096).

To reach the reserve, which is north of Doncaster, leave the M18 at J4, follow the A630 and turn right to Barnby Dun at the second roundabout. Keep straight on at the next roundabout and then follow Armthorpe Lane, staying right at the next two junctions and turn left at the third. Cross the River Don in Barnby Dun (left turn) and follow Fordstead Lane to the meeting place, a gate on the right after about a mile.

From Doncaster, proceed along the A19 into Bentley and take the second exit at the mini-roundabout after the shops, signposted Arksey and Barnby Dun. Go through Arksey towards Barnby Dun. Norwood Gate is on the left about a mile after Arksey.

Indoor Meeting: Meet at 'The Olive' Bar and Grill public house (SE618089), Barnby Dun at 4pm. Turn left from the reserve entrance and, after a mile or so, cross over the River Don and then a canal and turn immediately right. 'The Olive' is immediately opposite a T-junction after about 500yds. The conservatory is booked for our meeting. Tea, coffee, drinks and snacks are available and, as no charge has been made for the room, please do patronise them.

The area: Thorpe Marsh Nature Reserve (70 hectares) adjoins the site of the now defunct Thorpe Marsh Power Station. It is on the east bank of the River Don flood plain about three miles north of Doncaster.

History. The nature reserve was opened in 1980 and was managed by the Yorkshire Wildlife Trust supported by CEGB and its successor National Power until 1994. It is now run by YWT and nature reserve volunteers.

Habitats. A disused railway line crosses the site on an embankment which is clothed in mature trees, mainly oak, Silver Birch *Betula pendula* and Hawthorn *Crataegus monogyna*. Hides overlook the main water bodies and marshland. There are two artificial lakes and several smaller water bodies. Much of the reserve is unimproved and semi-unimproved

neutral grassland with a variety of vegetation. There are many mature trees and hedges on the site, with areas of scrub and wetlands. Plants include Pepper-saxifrage *Silene silene*, Great Burnet *Sanguisorba officinalis*, Common Figwort *Scrophularia nodosa* and Devil's-bit Scabious *Succisa pratensis*; many birds nest here, including Barn Owl *Tyto alba*, and there is an extensive lepidoptera list.

Hazards of the area: Steep steps, water bodies, boggy ground, rabbit holes.

Circular No. 887

Divisional Secretary VC64: Terry Whitaker, 4 Crowtrees, Low Bentham Via Lancaster LA27EE. Tel: 015242 62269; e-mail: t.whitaker1@btinternet.com

The VC64 meeting will be to **Austwick & Lawkland Moss SSSI on Saturday 12 July.**

The YNU Moth Group is invited to trap on the Friday night - generators/batteries will be required as there is no power source on site.

Maps: 1:50,000 Sheet 98 (Wensleydale & Wharfedale)
1:25,000 Explorer OL 41 (Forest of Bowland & Ribblesdale)

Meeting place: There is limited car parking near the site. Park on the disused A65 old road by the Harden Bridge (SD762678) and meet at 10:30am. We will try to run a car shuttle service to the site entrance.

Indoor reporting meeting: Dalesbridge Centre, Harden Bridge (SD762676) at 4pm; a small charge will be made for tea and biscuits.

The Area: Description: Austwick and Lawkland Mosses (SD7666) are two connected areas of peatland in the valley of the River Wenning, each much modified by past human activity and displaying, as a result, a wide range of habitats.

Austwick Moss is a raised mire on which peat cutting has reduced the depth of peat and in some places exposed the underlying shell marl. The resulting combination of acid bog and more calcareous hollows provides a mixture of ombrotrophic and poor fen communities in close proximity. Acidic pools and wet hollows are dominated by bog mosses *Sphagnum cuspidatum* and *S. recurvum*, with Cranberry *Vaccinium oxycoccus* and, more locally, Bog-rosemary *Andromeda polifolia*, Round-leaved Sundew *Drosera rotundifolia* and the bog moss *Sphagnum magellanicum*. The drier parts have Bog-myrtle *Myrica gale*, Purple Moor-grass *Molinia caerulea* and a Heather-Bilberry heathland. Birch carr gives way at the margin to poor fen, in which the effect of the underlying shell marl is evident in a richer community containing Marsh Cinquefoil *Comarum palustre*, Great Burnet and Northern Marsh-orchid *Dactylorhiza purpurella*. Unfortunately, drainage has encouraged the spread of birch, and this is a considerable problem. To the north and west of the Moss, there is an area of

calcareous flush vegetation containing Blunt-flowered Rush *Juncus subnodulosus*, Black Bog-rush *Schoenus nigricans* and Bird's-eye Primrose *Primula farinosa*. Lesser Butterfly-orchid *Platanthera bifolia*, Herb Paris *Paris quadrifolia*, Bog Orchid *Hammarbya paludosa* and Coralroot Orchid *Corallorhiza maculata* are also listed, but these have not been seen for many years. A similar but more varied range of habitats occurs further east on Lawkland Moss, including raised mire and birch woodland. Herb-rich grassland in the north and west of the site contains Saw-wort *Serratula tinctoria*, Betony *Stachys officinalis*, Adder's-tongue *Ophioglossum vulgatum*, Dyer's Greenweed *Genista tinctoria* and Meadow Saffron *Colchicum autumnale*. To the southeast are two large fields whose eastern halves are managed as meadows and are dominated by Sharp-flowered *Juncus acutiflorus* and Compact Rushes *J. conglomeratus* and Common *Carex nigra*, Star *C. echinata* and Brown Sedges *C. disticha* with an abundance of flowering plants such as Ragged-Robin *Lychnis flos-cuculi*, Marsh Valerian *Valeriana dioica* and Common Marsh-bedstraw *Galium palustre*, but which give way in their western halves to rough grazing land which is more acidic with Bog Myrtle, Common Cottongrass *Eriophorum angustifolium*, Bottle Sedge *Carex rostrata* and Creeping Willow *Salix repens*. The hemi-parasite Marsh Lousewort *Pedicularis palustris* and Common Cow-wheat *Melampyrum pratense* also occur here.

The mires are joined by a corridor of sedge-rich pastures valuable for breeding waders including Snipe *Gallinago gallinago*, Redshank *Tringa totanus*, Lapwing *Vanellus vanellus* and Reed Bunting *Emberiza schoeniclus*. The sites are an important locality for rare and local insects, including Small Pearl-bordered Fritillary *Boloria selene*, the recently discovered Silvery Arches moth *Polia trimaculosa* and the Marsh Oblique-barred *Hypenodes humidalis*. The small pools contain unique and rich assemblages of water beetles and other aquatic invertebrates such as the Water Spider *Argyroneta aquatica*.

Hazards of the area: These wet sites have a lot of very tussocky ground, so there is always risk from tripping and falling. There are several small ponds and moss pools which are deep and vertical-sided and it is also possible to fall into concealed holes in the bog, so do not work alone. Please take reasonable care at all times and wear appropriate clothing such as wellingtons. Deer are common on the site and consequently deer ticks are present. **Be aware of the dangers of Lyme Disease** which can be transmitted by tick bites. Any children in the party must be closely supervised by a parent or guardian at all times.

Previous YNU visits to the area, Circulars & Reports

Excursion 259, 16 June 1928, Circular 341, Separate; *The Naturalist* 53: 379-383.
 Excursion 317, 13 May 1940, Circular 423, *Naturalist Suppl.*; *The Naturalist* 65:207-213.
 Excursion 387, 5-7 June 1954, Circular 540, *Naturalist Suppl.*; *The Naturalist* 79: 153-154.
 Excursion 480, 8 July 1972, Circular 670, Separate; *The Naturalist*, 97: 156-158.
 Excursion 553, 30 May 1987, Circular 750, *YNU Bull.* 9: 24; *The Naturalist*, 113: 151-153.

Accommodation

Dalesbridge Centre. Austwick, North Yorkshire LA2 8AZ Tel. 015242 51021,

e-mail info@dalesbridge.co.uk

The Traddock Hotel. Austwick, North Yorkshire LA2 8BY Tel 015242 51224,

e-mail info@thetraddock.co.uk

Austwick Hall. Townhead Lane, Town Head, Austwick, North Yorkshire LA28BS Tel. 015242 51794, e-mail austwickhall@austwick.org

Wood View B & B. The Green, Austwick, LA2 8BB Tel. 015242 51190,
e-mail woodview@austwick.org

Yorkshire Dales Bunkhouse. Church Ave, Clapham, North Yorkshire LA2 8EQ, Tel. 015242 51144, e-mail info@claphambunk.com

Circular No. 888

Divisional Secretary VC65: Terry Whitaker, 4 Crowtrees, Low Bentham Via Lancaster LA27EE, Tel. 015242 62269, e-mail t.whitaker1@btinternet.com

The VC65 meeting will be to **Grinton, Harkerside Moor, Swaledale on Saturday 26 July.**

The YNU Moth Group is invited to trap on the Friday night at Hudswell and Hag Woods, Richmond: meet at the NT car park (NZ157007). Generators/batteries will be required as there is no power source on site.

Maps: 1:50,000 Sheet 98 (Wensleydale & Wharfedale)

1:25,000 Explorer OL 30 (Yorkshire Dales, Northern & Central Areas)

Meeting place: Park alongside the minor road near Maiden Castle (SE019982) at 10:30am.

Indoor reporting meeting: (to be confirmed) 4pm at the Bridge Inn, Grinton (SE046984).

The Area: Description: The area is part of the southern slopes of the River Swale valley and also of the very extensive Lovely Seat-Stainton Moor SSSI. In the valley bottom are meadows and pastures while the vegetation is predominantly heathland on higher parts of the slopes, with Heather-Wavy Hair-grass community of variable species richness. In parts this dry heath forms a mosaic with the Heather-Common Cottongrass blanket mire into which it grades. Much of this is managed as Grouse Moor, which forms a mosaic of burnt-over areas in various stages of regrowth. Shooting has been carried on in Swaledale for 150 years and has its own impact on the upland landscape above 350m on Harkerside, where management has produced some of the broadest stretches of heather moorland of the dales. On the rockier, freely-drained slopes on the Lower Howgate Grits on Grinton, Harkerside and Whitaside Moors, Bilberry *Vaccinium myrtillus* increases in abundance and Cowberry *Vaccinium vitis-idaea* and Crowberry *Empetrum nigrum* occur. Heath Bedstraw *Galium saxatile*, Sheep's Fescue *Festuca ovina* and Wavy Hair-grass *Deschampsia flexuosa* also characterise the heath community. Adding to the mosaic on the edge of the heath-bog interface are areas of Heath Rush-Sheep's Fescue grassland and Mat-grass *Nardus stricta*-dominated swards occur on the extensive remains associated with ancient lead-mining

activities on Harkerside. Although in essence species-poor, they host such scarce metallophytes as Alpine Penny-cress *Nocca caerulea*, Moonwort *Botrychium lunaria* and Spring Sandwort *Minuartia verna*. Grinton How Mill (SE048964) is the best preserved smelt mill in the Yorkshire Dales National Park and well worth a visit. The area also has a few limestone outcrops and screes. Here Sheep's-fescue-Common Bent-Thyme communities dominate, containing plants such as Fairy Flax *Linum catharticum*, Flea Sedge *Carex pulicaris* and Ribwort Plantain *Plantago lanceolata* as well as the scarcer Limestone Bedstraw *Galium sternerii*, Blue Moor-grass *Sesleria caerulea* and Alpine Bistort *Persicaria vivipara*. Small but species-rich limestone flushes support Grass-of-Parnassus *Parnassia palustris* and the rare Bird's-eye Primrose.

Woodland and scrub are very restricted in the dale but Harkerside Moor is one of only three notable areas of W19 Juniper scrub within the Yorkshire Dales (**Re Juniper: please note the warning notice in the editorial**). Immediately to the east is Horse Pasture Wood (SE007978), an area of 8ha comprising Alder-Ash and Oak-Downy Birch communities. Although surrounded by a fringe of Scots Pine *Pinus sylvestris*, the ground flora indicates ancient origins and there are at least 19 species of mosses and liverworts. Towards the eastern end of the site, around Grinton and Stainton Moors, more patches of Bracken *Pteridium aquilinum* occur on the heath. Bird records indicate a rich assemblage of moorland breeding birds, a nationally-significant Golden Plover *Pluvialis apricaria* population in excess of 200 pairs and a minimum of four pairs of Merlin *Falco columbarius*. Merlin and Short-eared Owl *Asio flammeus flammeus* favour taller heather for nesting while Red Grouse *Lagopus lagopus*, Golden Plover, Dunlin *Calidris alpina* and Curlew *Numenius arquata* take advantage of the varied structure provided by burning management. Snipe and Redshank breed around the grassy and marshy edges of the moor, while birds such as Ring Ouzel *Turdus torquatus* tend to occur around rock outcrops.

This is an ancient occupied landscape. At Maiden Castle (SE021980) a roughly circular 100m-diameter ditch 4-5m deep was carved out of the hillside in prehistoric times, with a long entrance in the form of an avenue of stones and with traces of hut circles inside. Its purpose is uncertain; possibilities include a defensive fort against the Romans or for use in rituals rather than a settlement. Iron Age defensive earthworks occur at Harkerside, Fremington Edge, How Hill, Low Whita and on the Grinton moraine (SE035986). The older drystone walls (mainly dating from the 16th and 17th centuries) enclose small, irregular fields near to the villages. The first parliamentary enclosures were on Fremington Edge in 1778. Higher ground was being enclosed by a series of straight, parallel walls by the 18th century. However, not all of the dale was enclosed, unlike Wharfedale and Wensleydale.

Hazards of the area: Steep and rocky areas and a lot of very tussocky ground, so there is always risk from tripping and falling. Please take reasonable care at all times and wear appropriate footwear and clothing. Any children in the party must be supervised by a parent or guardian at all times.

Previous YNU visits to the area, Circulars & Reports

Excursion 124, 4 June 1900, Reeth/Arkengarthdale Circular 153, *YNU Trans Suppl.*: 26.

Excursion 219, 22-24 May 1920, Reeth/Mid-Swaledale Circular 285, *Separate*: The *Naturalist* 45: 253-258.

Excursion 382, 22-25 May 1953, Grinton/Reeth/Mid-Swaledale Circular 531, *Naturalist Suppl.*: 78; *The Naturalist* 78: 173-175.

Accommodation

Arkleside Country Guest House, Reeth, North Yorkshire DL11 6SG Tel. 01748 884200, e-mail enquiries@arklesidereeth.co.uk

The Bridge Inn, Grinton, Richmond, North Yorkshire DL116HH Tel. 01748 884224, e-mail atkinbridge@btinternet.com

The Buck Hotel, Reeth, Richmond, North Yorkshire DL11 6SW Telephone: 01748 884 210, e-mail: buckhotel@btinternet.com

The Dales Bike Centre; <http://www.dalesbikecentre.co.uk/> Tel. 01748 884908, e-mail enquiries@dalesbikecentre.co.uk

YHA Grinton Lodge, Grinton, Reeth, North Yorkshire DL11 6HS Tel. 0845 371 9636, e-mail grinton@yha.org.uk

Circular No. 889

Divisional Secretary VC61: Sarah White, Yonder Cottage, Ashford Hill, Thatcham, Berkshire, RG19 8AX. Tel: 01635 268442, e-mail: sarahpriest656@btinternet.com

The VC61 Meeting will be to **Skerne Wetlands on Saturday 9 August**.

Maps: 1:50,000 Landranger Sheet: 107 (Kingston upon Hull).

1:25,000 Explorer Sheet: 295 (Bridlington, Driffeld and Hornsea).

Meeting place: Meet in the car park of the Skerne Wetlands YWT Nature Reserve (TA058543) at 10.30am. From Skerne village, take the minor road to Wansford and, just as you leave the village, turn right towards Church Farm. Follow the track towards Copper Hall and Cleaves Farm for about half a mile and turn right down the side of a shelter belt. At the south end of this wood, turn left through a gate. Cars may be left in the area by the gate (being careful not to block the track) or may be taken another few hundred yards along the track to the bridge where there is additional parking. There are no toilet facilities. The reserve is not yet open to visitors so there are no reserve signs from the village but the turning from the road will be marked with a temporary 'YNU' sign.

Dave Chesmore has kindly agreed to set up a **moth trap the evening before the Excursion**, so anyone wishing to see some of the moths should aim to **arrive by 9.30am**.

Tea and Meeting: In the WI Hall in Hutton Cranswick at 4.30pm. This is located on the north

side of the main street of Cranswick village, close to the junction with the lane to Hutton (TA022524, Postcode YO25 9QR). There is parking on the roadside. Maps showing the route from the reserve to the hall will be issued on the day.

The Area: Skerne Wetlands is a former commercial fish farm adjacent to the West Beck on the headwaters of the River Hull and comprises 60 ponds and a network of ditches interspersed with rough wet fen/grassland communities. It also includes a 2km length of the River Hull Headwaters SSSI, nationally important as the most northerly chalk stream system in Britain. The 33ha site was purchased in 2012 with grant aid from Natural England and part of a legacy to the YWT from Eva Crackles. The current plan is for YWT to restore the site to a mosaic of wetland habitats including wet grassland, wet woodland, reedbed, fen and pond habitat alongside the chalk stream of the West Beck.

This is a new Yorkshire Wildlife Trust Reserve, recently acquired and not yet open to visitors. We are being given the opportunity to visit in order to collect baseline data about the site before any major management work is started and to advise on optimising the site for wildlife. YWT secured funding from the WREN BAF landfill fund in June 2013, with the three-year funded project starting in October 2013. This grant will enable YWT to carry out the restoration and enhancement work across the site.

As a result of former commercial use, the landscape and vegetation have been subject to disturbance and enrichment and there was an abstraction of water from the river which temporarily depleted water levels. The site nevertheless supports extensive semi-natural wetland communities and is already a very valuable oasis for wildlife in this intensively farmed part of the East Riding. There are large areas of Common Reed *Phragmites australis* and Reed Sweet-grass *Glyceria maxima* alongside rough tall-herb communities of varying degrees of wetness. The West Beck, where it flows through the site, is fast-flowing calcareous water with shallows and gravel beds and the vegetation is dominated by Stream Water-crowfoot *Ranunculus penicillatus*. This is complemented by standing or slow-flowing water in the ditches and remaining stew ponds. There are species-rich wet fen and grassland communities close by at Kellythorpe Marsh between Driffield and Wansford and at Tophill Low, so there may well be relict plants and animals surviving here which will respond to sensitive management. Overall this site has enormous potential and it is important for the YNU to respond with records and advice to help the YWT make the most of its excellent initiative in purchasing this site.

Hazards of the Area: There is a good track which runs the length of the site offering access on foot or by car. However, great care needs to be taken in walking off the track as there are numerous old ponds and ditches with steep sides, some of which may be obscured by overgrown vegetation.

Reference: The citation for River Hull Headwaters SSSI is at: http://www.english-nature.org.uk/citation/citation_photo/1003424.pdf

Calendar 2014

Up-to-date information can also be found on the YNU website at www.ynu.org.uk/events/general

- | | | |
|-----|-------|---|
| 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 Ingleboro'.) |
| | 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 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 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 |
| | 20 | YNU Entomology Section at Hag Wood and Hudswell Wood nr Richmond. Meet at 10:00 at the Swaleview Caravan Park (NZ133012). |
| | 29 | Botany Section Field Meeting VC62, Kilburn. Meet in the small car park SE514805 at 10:30. |
| | 29 | YNU Entomology Section. Ox Close Wood, East Keswick. Meet at 10:30 at car park off the A659, East Keswick (SE362454). |
| 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. |
| | 26 | 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 . |
| | 22 | YNU Entomology Section. Inkle Moor & Bell's Pond, Thorne Moors. Meet at 10:30 at the junction of Goole Road with Moorends Road (SE692163). |
| Nov | 15 | AGM, Malham Tarn Field Centre. Transport from Settle & overnight accommodation available - see the next <i>Naturalist</i> . |

YNU Entomology Section meetings - contact Bill Ely via billely@hotmail.com for further details.

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 look at a recent issue of the journal for a general idea of how to present your article. Also see *The Naturalist Guide to Consistency* on p77 of *The Naturalist* 1079 and please **avoid** the following:

- using any paragraph formatting and line spacings other than single.
- 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 – 2014

Single copies may be made of single articles in this journal provided that due acknowledgement is made and the copies are for non-profit 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

