Breeding season Water Rail survey at Gosforth Park Nature Reserve
by JAMES LITTLEWOOD

New flatworm species recorded on Tunstall Hills, Sunderland
by BARRY ROBINSON

John Emmerson Robson (1833-1907)
A naturalist from Hartlepool – his magazines and his friends
by R A BAKER and D S GILL

An historical list of taxidermists of Berwickshire, Durham and Northumberland
by LES JESSOP

Kathleen Bever Blackburn: A distinguished British botanist
by ALAN L HART
Contents

Breeding season Water Rail survey at Gosforth Park Nature Reserve 5
by JAMES LITTLEWOOD

New flatworm species recorded on Tunstall Hills, Sunderland 10
by BARRY ROBINSON

John Emmerson Robson (1833-1907) A naturalist from Hartlepool –
his magazines and his friends 12
by R A BAKER and D S GILL.

An historical list of taxidermists of Berwickshire, Durham and
Northumberland 24
by LES JESSOP

Kathleen Bever Blackburn: A distinguished British botanist 49
by ALAN L HART
FOREWORD

As a natural history society, the Natural History Society of Northumbria has a focus on the study of plants and animals. We also put the ‘history’ into our natural history too, ranging from geology and palaeontology to the more-recent social history of our discipline. Recognising the contribution of past generations of natural historians to modern science and biology is an important aim of the NHSN, not just for ensuring that they get the credit they deserve, but because this enriches our own experiences of natural history and helps us to appreciate those rare observations of the natural world that are genuinely new discoveries.

The Society’s Transactions, now published under the name Northumbrian Naturalist, reflects that wider view of natural history in both present and historical contexts, and is also a feature of the current issue. Two short papers, one from James Littlewood on Water Rails in Gosforth Park showing how this species is probably under recorded within its range, and one by Barry Robinson on a new species of flatworms, demonstrate the value of skilled natural historians for conservation monitoring in changing environments.

From a historical perspective, a paper by Sandy (R.A.) Baker* and Steve Gill on amateur naturalists and entomologists active in Hartlepool, County Durham, in the last half of the nineteenth century offers a fascinating insight into how the work of dedicated amateurs has underpinned our current knowledge. Two aspects of this paper that caught my attention are relevant today: the importance of taxidermy in inspiring naturalists, past and present, and the need for us to continue their work in inspiring young naturalists who will be the conservation standard bearers for the future. Les Jessop’s paper on taxidermists active in the north-east in past provides a long-overdue perspective on this important skill which has provided the foundations for our collections and displays in the Great North Museum: Hancock, and which continue to inspire new generations of naturalists. Finally, Alan Hart reminds us with his biography of Kathleen Blackburn, a distinguished botanist active in the region in the first half of the twentieth century, that the important contributions of female scientists and naturalists too often go unrecognised.

Maintaining this diversity of natural history content in Northumbrian Naturalist is important for the Society, and we hope that members will be inspired to contribute their work on all aspects of the natural world, present and past, so that we can grow and develop this journal for the naturalists in the north east.

Chris Redfern
Editor

*Sadly, Sandy Baker passed away before he could see his work in print.

BREEDING SEASON WATER RAIL SURVEY AT GOSFORTH PARK NATURE RESERVE

James Littlewood
C/o Natural History Society of Northumbria, Great North Museum: Hancock, Newcastle upon Tyne NE2 4PT

SUMMARY

A survey was carried out in April 2016 to establish the size of the breeding Water Rail *Rallus aquaticus* population at Gosforth Park Nature Reserve in Newcastle upon Tyne. The population proved to be significantly higher than estimated by random observation, in line with surveys elsewhere in the UK, suggesting that the population size for the region has been underestimated.

INTRODUCTION

Because of its skulking terrestrial nature and preference for thick wetland vegetation, the Water Rail is one of the UK’s most difficult birds to record accurately, especially when it is not making its distinctive calls. A specific Water Rail survey is required to get a more accurate estimate of population.

To the author’s knowledge there have been no formal surveys for Water Rail undertaken in the Northumberland, Newcastle and North Tyneside areas. There has been no national survey for Water Rail (Balmer et al. 2013). Chance patterns of detection mean that we cannot be confident about data regarding regional Water Rail distribution and population size in the past or the present.

Gosforth Park Nature Reserve is located on the northern outskirts of Newcastle upon Tyne. The reserve is 62 ha which includes approximately 10 ha of lowland wetland, which contains a mix of shallow open water, reed *Phragmites australis*, Bulrush *Typha latifolia* and low earth bunds with coppiced willow *Salix spp.* (photo x).

Figure 1. Part of the wetland at Gosforth Park Nature Reserve (Christopher Wren).
Significant work has taken place at Gosforth Park Nature Reserve since the 1990s in order to improve the quality of wetland habitat. Annual surveying (bird ringing) of Reed Warbler *Acrocephalus scirpaceus* takes place and the results of this have shown an increase in the population of that species. But very little is known about the Water Rail population in the reserve other than that gleaned from observation. This suggested a breeding population of 3-4 pairs in the period 2013-2015. It was considered that having a reliable baseline survey would enable the population of Water Rail to be monitored in future as the Reserve’s wetland habitats continue to evolve.

**METHOD**

The survey method followed that described by Gilbert *et al* (1998), using a recording of Water Rail calls to elicit a response. The method is summarised here, including any departures from Gilbert *et al* (1998).

**Dates and timing**

One survey was carried out from 06:10 to 08:50 on 15 April 2016. Gilbert *et al* (1998) recommended surveying between late March in southern England and the end of April in northern Scotland. Mid-April was considered to be appropriate for northeast England. Sunrise was at 06:03, within the “early morning, after sunrise” recommended by Gilbert *et al* (1998).

**Conditions**

Overcast but dry. Temperature was cool for time of year (<5°C) and had been cool and overcast/raining on preceding days. The wind was light (force 1-2) from the south-west. Gilbert *et al* (1998) recommend surveying in winds of force 3 or less.

Water levels in the reserve can be controlled by a sluice. At the time of the survey the levels were relatively high (close to normal winter level) but there was no flooding.

**Observers and recording**

The survey was conducted by two observers working together (the author and Christopher Wren), as recommended by Gilbert *et al* (1998). A clear 104 second recording of a pair of Water Rails “sharming” in Brescia, Italy was downloaded from www.xeno-canto.org (recording XC302800 by Francesco Sottile 2016) onto a tablet. The recording was then played from a portable speaker using Bluetooth. This was sufficiently loud to be heard at least 100 metres away. This system had been briefly tested at the Reserve several weeks earlier and had elicited a response from a pair of Water Rails.

The observers stopped at intervals of 50 to 100 metres on a route around the wetland to play the recording. One observer played the recording and the other stood around 20 metres away. Gilbert *et al*. (1998) recommend playing the recording for 60 seconds, followed by listening for 60 seconds. If no birds were heard then the recording was played again for 30 seconds followed by 60 seconds of listening. In cases where no birds were heard the observers repeated this last sequence but on no occasion did any birds respond to this final recording which suggests that the initial two plays were sufficient to elicit a response if birds were present.

Due to the difficulty of hearing above the recording, towards the end of the survey the speaker was placed slightly away from the observer playing it and this was considered a better method.

All calling Water Rails were plotted on a map (Figure 2) of the Reserve by both observers, who estimated where birds were calling from. Observers were conscious of having to avoid double counting and aware of the potential for Water Rails to follow the recording (Gilbert *et al* 1998).

The observers walked in a clockwise direction around the reedbeds, selecting locations to play the recording where there was potentially suitable habitat that could be reached on foot (with wellington boots). The observers consider that the recording would have been heard (and responding birds heard) from all suitable habitat in the Reserve. Figure 2 shows the survey locations.

**Figure 2.** Diagram of wetland showing survey points (two observers) and locations of Water Rails. Survey locations are marked with filled red circles, proceeding in a clockwise direction from the location marked with a blue ‘+’ (0610 h on 15 April 2016) to the final location marked with a blue ‘*’ (0850 h on 15 April 2016). Locations of pairs are marked with black ‘x’, and single birds with ‘s’. An uncertain response is marked with ‘?’. 
RESULTS

At least seven pairs of Water Rail were located plus a single calling male and another individual which was seen but did not call: in total 16 individuals. The area of wetland is estimated as being around 10 ha and therefore a population density of 0.7-0.9 pair/ha.

One of the observers heard what might have been an additional pair, but the location was close to where a calling pair had already been heard (and distant from the observers) so that double counting could not be ruled out.

The locations of birds recorded are shown in Figure 2. It is difficult to draw firm conclusions about distribution from this one survey but it does appear that Water Rails were absent from areas of drier reed and from areas where reed was growing in deep water, but were present at the interface of water and muddy margins. This is consistent with observations in Chown (2004).

DISCUSSION AND CONCLUSIONS

It is possible that a few wintering or passage Water Rails are in northeast England into mid-April and so this could possibly account for the individual which was seen but not heard (there is an assumption in Gilbert et al (1988) that Water Rails responding as pairs are breeders rather than lingering winter or passage birds).

According to Chown (2004), in the UK, Water Rails lay their clutches from late March onwards and it is known that only one member of a breeding pair responds in at least some cases where incubation has started. A week after the survey a male Water Rail was heard singing in the early evening from the same location as an individual had been heard calling during the survey, suggesting that this was either a bird holding a territory without a female or that the female was already incubating.

The observers are confident that there were at least seven pairs of Water Rails present, but a further two pairs could not be ruled out. The breeding population is estimated at 7-9 pairs. This is double the estimate of 3-4 pairs that was based on random observation.

This is consistent with Chown (2004) who reported that Water Rail surveys at other wetlands also found significantly higher populations than had been previously estimated: Leighton Moss, Lancashire (estimated 35-50 pairs, survey found 73-104 pairs), Inner Tay Estuary (estimated five pairs, survey found 126 pairs), Stodmarsh, Kent (estimated 10 pairs, survey found 43 pairs), Dungeness, Kent (estimated 3-4 pairs, survey found 12 pairs).

Using data in the Northumberland Bird Atlas (Dean et al 2015) an estimate of the total breeding population for Northumberland, Newcastle and North Tyneside would be around 36 pairs from 26 different sites. That 7-9 pairs have now been recorded at just one site throws this estimate into doubt.

The results of this and others’ surveys suggest that Water Rail populations are significantly underestimated by random observation and that the population in the north east is likely to be much higher than previously estimated. Further surveys at other suitable sites are required to get a more accurate estimate of the regional population. Neither the survey methodology nor the number of potential sites is onerous.

Table 1. Results from Water Rail surveys at other sites using the methodology by Gilbert et al (1998) (data from Chown 2004) compared with Gosforth Park NR.

<table>
<thead>
<tr>
<th>Site</th>
<th>No pairs</th>
<th>Pairs/ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gosforth Park Nature Reserve</td>
<td>7-9</td>
<td>0.7-0.9/ha</td>
</tr>
<tr>
<td>Inner Tay Estuary</td>
<td>126</td>
<td>0.31/ha</td>
</tr>
<tr>
<td>Leighton Moss RSPB</td>
<td>73-104</td>
<td>0.69-0.98/ha</td>
</tr>
<tr>
<td>Dungeness RSPB</td>
<td>12</td>
<td>0.52/ha</td>
</tr>
<tr>
<td>Avalon Marshes</td>
<td>122</td>
<td>0.36/ha</td>
</tr>
</tbody>
</table>

Table 1 suggests that the density of Water Rail at Gosforth Park Nature Reserve is at the upper end of what might be expected. Of the sites in Table 1 the most similar to Gosforth Park is Leighton Moss where the density levels are very similar. This suggests that the habitat conditions at Gosforth Park Nature Reserve are good for Water Rail.

REFERENCES


NEW FLATWORM SPECIES RECORDED ON TUNSTALL HILLS, SUNDERLAND

Barry Robinson
5 High Street, South Hylton, Sunderland SR4 0PP
Member of Tunstall Hills Protection Group

SUMMARY

The flora and fauna of the United Kingdom is one of the best documented in the world and it is quite unusual to find a species here which has not been recorded before. It is significant therefore to note just such a new species in the north east of England. A small dark flatworm with up to 80 tiny black “eyes” has been discovered on Tunstall Hills, Sunderland (NZ392546). The 12mm-long flatworm was found, photographed and recorded by Andy Fox, a member of the Tunstall Hills Protection Group. The animal has a patchy brown external appearance with small, seemingly randomly scattered, almost iridescent, pale blue-ish patches. Since 2003 similar previously unrecorded small terrestrial flat-worms have been reported in six localities in the United Kingdom, two in the Netherlands and one in France. The animals are specimens of a species of the genus Marionfyfea not previously described. In a recently published paper (Jones and Sluys 2016) the animals have been identified as a new species, Marionfyfea adventor. The authors acknowledge the Tunstall Hills records.

Figure 1. The newly discovered flatworm photographed with a 5p piece.

REPORT

The first specimen found on Tunstall Hills was recorded on 6 March 2016 underneath limestone rock scree in a woodland area. Further specimens were recorded on 1 May 2016.

Research on the internet led eventually to Hugh Jones, the world authority on land flatworms and a Scientific Associate of the Natural History Museum in London. He reported that specimens of the animal had been recorded in Buckinghamshire, Cambridgeshire and Cornwall. It was thought that the animal was a completely new and undescribed species.

Working with a colleague in the Netherlands, Hugh Jones submitted a scientific paper in June 2016 which was published in August 2016 (Jones and Sluys, 2016). In the paper the morphology and anatomy of the recorded animals was described and diagnostic similarities to the genus Marionfyfea noted.

The paper described the Tunstall Hills and other specimens as a new species, Marionfyfea adventor (sp. nov.) The only other known species of Marionfyfea is recorded from the Auckland Islands, New Zealand. New Zealand seems to be a centre of diversity for land flatworms and its climate is very similar to that of the UK. The flatworms may have been accidentally transported to the UK with exported plants.

TAXONOMY

Order TRICLADIDA (Lang 1884)
Suborder CONTINENTICOLA (Carranza, Littlewood, Clough, Ruiz-Trillo, Baguñà and Ru而不 1998)
Family GEOPLANIDAE (Stimpson 1857)
Subfamily RHYNCHODEMINAE (Von Graff 1896)
Tribe ANZOPLANINI (Winsor 2006)
Genus Marionfyfea (Winsor 2011)
Marionfyfea adventor sp. nov.

ACKNOWLEDGEMENTS

With many thanks to Andy Fox for his species recording on Tunstall Hills and for access to photographs and communications.

REFERENCES

JOHN EMMERSON ROBSON (1833-1907)  
A NATURALIST FROM HARTLEPOOL -  
HIS MAGAZINES AND HIS FRIENDS

R A Baker¹ and D S Gill²,

¹The Bungalow, St Johns Park, Menston, Ilkley, LS29 6ES.
²123 The Longshoot, Nuneaton, Warwickshire, CV11 6JQ.

SUMMARY

In any history of natural history in the north-east of England, especially entomology, the names of J E Robson (1833-1907) and John Gardner (1841-1921) appear on a regular basis. Robson was best known for his “Catalogue” of Lepidoptera, which was “seen through” to completion by Gardner when Robson died. This article is about John Emmerson (sometimes spelt “Emerson”) Robson of Hartlepool: his contribution to natural history, its literature and his associates.

A SUMMARY OF HIS EARLY LIFE, FAMILY AND CAREER

John Robson was born in Newcastle in 1833, and died aged 74 in Hartlepool on 28 February 1907. At his funeral, attended by the Mayor and Corporation, “the streets en route to the cemetery were lined with people assembled to show their respect” (Porritt 1907a). He lived in Hartlepool all his working life and had several occupations including working in a local bank and as a music dealer. He became a house agent and furniture dealer in partnership with Henry Adolphus Hammarbom and thereafter with William Cockburn, but after this ended in bankruptcy in 1863 he became a joiner and builder, employing nine men and eight boys (1881 census). His first wife Emma Wilson, whom he married in 1857, died in 1862 and in 1864 he married Margaret Hoggett, with whom he had seven children (four sons and three daughters). He was elected a Fellow of the Entomological Society in 1890, was a member of the Tyneside Naturalists’ Field Club (1872) and became an honorary member of the Lancashire and Cheshire and The City of London Entomological Societies (Eales 2001). He was described as an “enthusiastic and genial companion” (Porritt 1907b). An artist of note, he played the piano at local social events (Newcastle Weekly Courant 3 November 1888 and 23 November 1889) and was a life-long abstainer from alcohol, involved in the local Temperance movement associated with the Good Templars.

Broadly interested in entomology, not just the Lepidoptera, and always mindful of local circumstances he identified and reported the presence of a live female Colorado beetle in the hold of a “screw steamer” in West Hartlepool, warning of it being a dangerous insect which could attack local potato crops and that the authorities should be on the alert (Northern Echo (Darlington), Saturday 21 August 1886).

Apart from his entomological work, Robson took a great interest in Hartlepool, where his father had been Mayor. Especially in education, he was a member of the Hartlepool School Board and served on the Borough Council. He was Conservative in politics and a Freemason.

Several notices and obituaries were published which are listed by Eales (2001)¹.

John Gardner (1841-1921)

John Gardner was born at Egglestone in Teesdale but went with his family to Hartlepool when he was aged around 15. Eventually he became a partner in a firm (trading under different names) of timber merchants and saw millers. Like Robson, he took great interest in the affairs of the town and was a councillor for a period but retired to Hart and took “a great delight in investigating the fauna of the wonderful district in which he lived” (Anon 1921). He made many “discoveries of rare or little known moths and beetles” and was regarded as the best known “local macro collector of recent years” and, next to Sang, “the best at micros also” (Anon 1921). He is remembered for his kindness, the help he gave to younger entomologists and the warm welcome to those visiting his home 2.

His collection of Coleoptera (merged with others) and his valuable collection of Lepidoptera are both held at the Great North Museum: Hancock.

Gardner was a prolific correspondent, and his letters are in the archives of The Natural History Society of Northumbria, including 34 letters from J E Robson to J Gardner dated from 16 July 1880 to 9 June 1904 and a large number of undated ones, plus a single response from Gardner to Robson dated 11 January 1901.

Reference has already been made to the part played by John Gardner in helping to complete the “Catalogue” after Robson’s death. Gardner had been one of Robson’s closest friends for many years and a companion on collecting trips (Eales 2001).

2 Portrait – Vasculum 8, No.1.

Seth Lister Mosley (1848-1929)

Mosley was born at Lepton and died at Fartown, Huddersfield. At the age of 16 he worked for a house painter and by 21 was in the same business on his own. At this time he married Sarah Taylor and they had two sons and a daughter. Mosley inherited his interests in natural history from his father, a taxidermist (Brooke 2012) and became a keen collector, writer, artist and curator. After running his own museum from his house, he took over the establishment and running of the biology museum at Huddersfield Technical College, at the invitation of T W Woodhead, and then went as curator to Cliffe Castle in Keighley. When the Tolson Museum in Huddersfield was established he became its first curator. A workaholic and total abstainer throughout his life, he became a local preacher after his religious conversion. He set up his own printing press, cut his own blocks, did his own printing and illustrations and published The Naturalists’ Journal and Guide where his artistic talents and his interests in economic entomology came to the fore. His involvement in publishing with Robson began in the late 1870s when they started a penny weekly called The Young Naturalist, but after a few years Mosley withdrew his involvement which lasted from November 1879 (Vol. 1, No.1) until November 1884 (Vol. 5, No. 60). During their collaboration many of Robson’s articles were illustrated by Mosley. Alan Brooke supplied additional information on Seth Mosley 3.

BUTTERFLIES AND MOTHS

Recognised in the north of England as “an ardent and successful Lepidopterist” (Porritt 1907b), Robson is best known for his “Catalogue of the Lepidoptera of Northumberland, Durham and Newcastle-upon-Tyne” published in four parts and two volumes in the Transactions of the Natural History Society of Northumberland, Durham and Newcastle upon Tyne in 1899, 1902, 1905 and 1913 4. These dates are important partly because Robson died prior to the completion of the final volume. The death of the author while the work was incomplete created a problem but “through the good offices of Mr John Gardner, the help of Mr Eustace R Bankes, the chief British authority on the Microlepidoptera, has been secured, Mr Bankes having very kindly undertaken

3 See also Brooke 2012.
4 See Robson 1902, for example.
the necessary revision of the manuscript and proofs”. The catalogue is still regarded as a standard work on the Lepidoptera of Northumberland and Durham and was “the definitive reference book for all local lepidopterists for the best part of a century” (Eales 2001), “although much has been added … and some of Robson’s notes have been found to be faulty” (Dunn 1983).

Around 100 years after Robson published his catalogue, Dunn and Parrack (1986) published an up-to-date account of the distribution of butterflies and moths in Northumberland and Durham. The authors noted a new classification, the discovery of new species, invalid earlier records, access to the more remote areas and changes due to climatic variation as some of the main differences taking place since Robson did his earlier work. Dunn and Parrack (1986) stated that although climate change is sometimes more difficult to correlate, there does appear to be “a marked and widespread northward extension of range”.

Robson also published several other books and booklets which are listed by Eales (2001), including “A list of British Lepidoptera and their named varieties” (Robson and Gardner circa 1886) and he was active in the Natural History Society giving lectures on “British Butterflies” (1900), The Hawk Moths” (1901) and “The appearance and disappearance of species among Lepidoptera” (1902).

Tyne and Wear Archives and Museums hold no Lepidoptera collections belonging to Robson. His collections of British Lepidoptera were sold at auction in London in 1895, and others after his death in 1907, by the auctioneers J C Stevens. There is further information about these collections and their sale in Eales, who states that the sales have “deprived later local entomologists of the opportunity of seeing genuine Durham specimens of, Marsh Fritillary, Scotch Argus, Small Blue, Gatekeeper and Speckled Wood butterflies and numerous moth species” (Eales 2001).

---

5 Transactions of the Natural History Society of Northumberland, Durham and Newcastle Upon Tyne, 1908.
7 S Kelly, pers. comm., 2 March 2016.
The Young Naturalist started in 1879 as a penny weekly with the object of providing information for the beginner, especially the young beginner. In 1882, at the end of volume 3, the weekly issue was discontinued and with volume 4, beginning in December 1882, became a monthly magazine with (for the first time) coloured plates. Described on the front cover as “An illustrated magazine on Natural History”, it was priced at sixpence. Robson wrote to Gardner in December 1885, inviting him to be one of the “Assistant Editors”, the caveat being that Gardner’s name would appear on the front cover but “there are no special duties”. The last number of The Young Naturalist (Volume 11) was issued in December 1890.

Some of Robson’s contributions in The Young Naturalist indicate his wider interests and there are articles entitled “The abundance of species in 1879”, “The first daisy” and “Collecting in Hartlepool” in the early numbers. After that virtually all of his publications in this magazine were on butterflies or moths - by way of examples see Robson (1880, 1881). He made a significant number of contributions to the magazine – see Table 2.

Table 2. Robson’s contributions to the first two volumes of The Young Naturalist

<table>
<thead>
<tr>
<th>Editorials and miscellaneous notes in every issue</th>
<th>Abundance of Species in 1879</th>
<th>The First Daisy</th>
<th>Collecting at Hartlepool</th>
<th>British Butterflies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/5/1880 v1.27; 8/5/1880 v1.28; 22/5/1880 v1.30; 5/6/1880 v1.32; 19/6/1880 v1.34; 26/6/1880 v1.35; 3/7/1880 v1.36; 10/7/1880 v1.37; 17/7/1880 v1.38; 24/7/1880 v1.39; 31/7/1880 v1.40; 7/8/1880 v1.41; 14/8/1880 v1.42; 21/8/1880 v1.43; 28/8/1880 v1.44; 4/9/1880 v1.45; 18/9/1880 v1.47; 16/10/1880 v1.51; 13/11/1880 v2.55; 27/11/1880 v2.57; 7/12/1880 v2.58; 18/12/1880 v2.60; 25/12/1880 v2.61; 1/1/1881 v2.62; 8/1/1881 v2.63; 15/1/1881 v2.64; 22/1/1881 v2.65; 29/1/1881 v2.66; 5/2/1881 v2.67; 12/2/1881 v2.68; 26/2/1881 v2.70; 12/3/1881 v2.72; 2/4/1881 v2.75; 9/4/1881 v2.76; 16/4/1881 v2.77; 23/4/1881 v2.78; 7/5/1881 v2.79; 14/5/1881 v2.80; 4/6/1881 v2.82; 11/6/1881 v2.83; 18/6/1881 v2.84; 16/7/1881 v2.88; 23/7/1881 v2.89; 6/8/1881 v2.91; 13/8/1881 v2.92; 20/8/1881 v2.93; 3/9/1881 v2.95; 10/9/1881 v2.96; 1/10/1881 v2.99; 8/10/1881 v2.100; 15/10/1881 v2.101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ROBSON ADVERTISEMENTS IN SCIENCE GOSSIP AND THE YOUNG NATURALIST

Robson obtained many of his specimens by exchange (and possibly purchase) and was always on the look-out for British Lepidoptera frequently using the pages of Science Gossip, the popular Victorian scientific magazine, to place his wants, offers and exchanges. He was also interested in botany as the following examples indicate: “A Herbarium of British plants numbering over 1000 specimens, and including most of the rarest species, all uniformly mounted and labelled” in return, “British or other Lepidoptera or books on natural history”. In another he placed an exchange advert: “British Lepidoptera, and dried plants, to exchange for others. Many rarities“. He had wide interests in natural history which included not only botany but shells, other invertebrates and horticulture.

1 Robson to Gardner, pers. comm., 12 December 1883 (Archives of the Natural History Society of Northumbria, Great North Museum: Hancock).

2 Science Gossip 21 (1885) 245.

3 Science Gossip 9 (1873) 100.
He also advertised in The *Young Naturalist* and the following are some examples of his Lepidoptera exchange entries which illustrate his main speciality. [Authors' expansion in brackets.]

The *Young Naturalist* (1882) - Vol. 3. No. 143.
I shall be glad to send living specimens of *Pissodes pini* [=Pine weevil] to anyone desiring them.

The *Young Naturalist* (1882) - Vol. 3. No. 152.
I will be greatly obliged to correspondents who will forward me specimens of *A[rctia] fuliginosa* [= Ruby Tiger] from their respective districts. I wish to compare specimens from different parts of the country for an article on the species. I will make the best return in my power.

The *Young Naturalist* (1886) - Vol. 7. part 81.

The *Young Naturalist* 10 (1889): part 110.
Wanted to borrow, to illustrate an article, extreme forms of *Melanippe fluctuata* [=Garden Carpet]. The greatest possible care shall be taken of any entrusted to me, and they shall be returned as soon as done with. I would also make a good return for typical specimens from any locality.

**CHANGE OF TITLE TO THE BRITISH NATURALIST AND PERSONNEL INVOLVED**

Following the last number of *The Young Naturalist* in January 1891, a new magazine was launched to replace it, called *The British Naturalist*. An editorial note in the last edition of the former magazine explains the change, “For the last eleven years it has been my pleasure to conduct the ‘Young Naturalist’... whilst I have made many friends, I have not lost one, and by the able assistance of my correspondents and co-adjudicators, the magazine has year by year to improve, and to receive a larger share of support. But a mistaken opinion as to its scope has been assumed from its title. It has, therefore, been deemed prudent to make the slight alteration needed to remove that impediment to its success, and in future it will be known as the *British Naturalist*. Robson wrote to Gardner for help: “I intend to introduce a new feature into the magazine...I want a column or so headed Notes on Larvae...I shall have to ask my friends for contributions to it. Will you write one, two or three? Short notes better than long ones”. Three volumes were completed under Robson’s editorship (to the end of 1893) and then in January 1894 he handed it over to Joseph Smith and Linnaeus Greening, both hailing from Warrington. Until this time, John Robson had been the sole editor of *The British Naturalist* but he was assisted by a number of other naturalists/entomologists (Table 1).

In all Robson edited the two magazines for 14 years, from 1879 to 1893.

**CONCLUSION**

John Robson had many friends and associates in natural history and without them he could not have written his “Catalogue” or edited his magazines. Two in particular stand out, John Gardner and Seth Mosley and they illustrate the web of connections in natural history in the north of England at this time. The magazines, which in general were proliferating in science at this time, helped to link these naturalists and strengthen their connections.

**ACKNOWLEDGEMENTS**

We would like to thank the following people for their help - Alan Brooke who is working on a volume on the life and work of Seth Lister Mosley, June Holmes, Archivist of the Natural History Society of Northumbria, and Stephen Kelly of Tyne and Wear Museums for their invaluable work on our behalf.

Since the submission of this article the Primary Author - Sandy (Richard Alan) Baker - has passed away and any communication pertaining to the article should be directed to the Secondary Author.
REFERENCES


PORRITT, G T (1907b). Obituary John Emmerson Robson. *The Entomologist’s Monthly Magazine* XLIII (2nd Series 208 (516) [April 1907]): 88-89

ROBSON, J E (1880). British Butterflies: 19 *Young Naturalist* 2: 36-38. [used for a description of *Euphydryas aurinia*].


AN HISTORICAL LIST OF TAXIDERMISTS OF BERWICKSHIRE, DURHAM AND NORTHUMBERLAND

Leslie Jessop

C/o Natural History Society of Northumbria, Barras Bridge, Newcastle upon Tyne NE2 4PT

SUMMARY

Several discrete sources have been used to compile a list of the taxidermists who were active in north east England and in Berwickshire from the 18th century to the middle of the 20th century. The list, which is surprisingly large, is hoped to serve to underline the importance of the craft in the practice of natural history in Britain during that period.

INTRODUCTION

Taxidermy is today practised by very few naturalists in Britain, but it had a very important role in natural history during the Victorian period when amateur naturalists not only prepared their own specimens but were able to buy professionally prepared mounts from commercial taxidermist businesses in most of our towns and cities. Displays of mounted birds and mammals played a central part in the public side of most provincial museums during the 19th century and well into the 20th, but overall there was a steep decline in the number of professional taxidermists.

There is no list of taxidermists of Northumberland and Durham other than as part of the nationwide lists by Herriot (1968) and Marshall (2009). This paper started with a simple enquiry as to exactly how many known taxidermists could be located in our region and extending up to the period of the Second World War.

One source of information is museum collections. There are thousands of items of taxidermy in the collections of the historic museums of north east England, especially in Newcastle, Sunderland, South Shields, Gateshead and Middlesbrough but there is often very little associated information about the taxidermists who prepared the specimens. A few cases of birds are signed, or have labels with the name of the company who supplied the work, most of the examples I have seen are from the historic collections of Sunderland Museum and Saltwell Towers (Gateshead). Newcastle is special, since we know that the taxidermist John Hancock donated his own collection to form the core of the British Birds display when the museum was redeveloped in the 1880s, and hundreds of his specimens still survive. Although not individually labelled, there is often enough documentation to recognise pieces of his work. Indeed, John Hancock is such an important figure in this regard that a mere listing in this directory cannot properly do him justice.

Trade directories have been very useful sources of information (a list of the trade directories that have been seen follows the list of References). These directories listed people by their address and also by trade: for taxidermists the trade was usually given as “Animal Preserver”, or “Bird and Animal Preserver” but occasionally taxidermists can be found among “Miscellaneous Trades and Professions”. From 1909 the name was replaced by “Taxidermist” in Ward’s Directory; some editions of Kelly’s directory list both “Taxidermists” and “Bird and Animal Preservers”. No taxidermists were listed in Ward’s Directories after 1916, but Kelly’s continued to list them until 1934. Only once, in the Directory of Northern Towns (1886), is the term “bird stuffer” used, and this was for J Chambers of 93 High Wilson Street, Middlesbrough.

Some information has been drawn from newspapers. This has been facilitated in recent years by searchable online databases of British Newspapers (the Gale News vault has been used).

Herriot’s (1968) and Marshall’s (2009) directories of British taxidermists have been searched for entries relating to north east England.

Amateurs and Professionals

The best known taxidermists in this list were not professionals. John Goundry, the “joiner and bird stuffer” to Marmaduke Tunstall, is famous principally because he is one of Britain’s earliest named practitioners of the art. John Hancock of Newcastle built an international reputation for the quality of his work, and his correspondence (in the archives of the Natural History Society of Northumbria) reveals that he did sell his work, but the rarity with which he advertised in trade directories as a bird preserver shows that he regarded himself principally as an amateur. There were probably many naturalists with an interest in birds who were able to prepare a study skin or a simple mount, and whose names – with a few exceptions – will not be found in the written record.

For several decades the leading professional taxidermists of the region were Robert Duncan and family of Newcastle, whose firm advertised in trade directories between 1847 and 1913. In the latter half of the 19th century they were rivalled by John Jackson (active 1888-1906).

During the 19th century, the period of the greatest growth of their collections of birds and mammals, only one museum in the region (Durham University Museum) employed a taxidermist. Other museums relied on the support of amateur taxidermists (such as John Hancock in Newcastle and William Yellowly in South Shields), occasionally contracting professional work (Bates in Newcastle) or on donations of material that had already been prepared. The Earl of Ravensworth, whose collection went to Saltwell Towers, had
specimens prepared by Duncan; the origins of specimens in the collection of Edward Backhouse (who gave his collection to Sunderland Museum) are mostly unknown; Abel Chapman’s Big Game heads were mainly prepared by Rowland Ward of London.

**Arrangement of the list**

The following list is arranged first by county (Berwickshire then Northumberland then Durham, with the “Town and County” of Newcastle treated as part of Northumberland), secondly by place (arranged alphabetically), and if there is more than one known taxidermist in a place then they are sorted alphabetically by name.

An index, listing taxidermists by name and also by place, is given at the end of the paper.

**BERWICKSHIRE**

**Berwick**

**Andrew Brotherston**

Andrew Brotherston “of Berwick-on-Tweed” was listed by Marshall (2009) because of a passage in a paper by George Bolam (1896). When discussing the Ruff, Bolam said “I have at various times seen birds in the late Mr Brotherston’s shop, but never an adult in winter dress, and I know that he used to regard the immature plumage as that of the adult in winter”.

However, it is clear from several mentions of Brotherston in *The Birds of Berwickshire* by G Muirhead that Andrew Brotherston was based in Kelso, not Berwick. Unless Berwick connections can be found he might not qualify for this list.

**John Brown**

Was listed in *Kelly’s Directory* as a taxidermist at 51 West Street (1902).

**John Hogarth**

Was listed in *Kelly’s Directory* for 1894 at 20 Hide Hill.

**NORTHUMBERLAND**

**Alnwick**

**Thomas Newton**

An article by Sidney Gibson (1869) in *The Gentleman’s Magazine* included information from Algernon, Duke of Northumberland (1792-1865), who told him he remembered a Wild Cat killed in Hulne Park *circa* 1810 and stuffed by Thomas Newton, the keeper of Brizlee Tower. It had a short thick tail and measured six feet long.

**Berwick**

**Andrew Brotherston**

Andrew Brotherston “of Berwick-on-Tweed” was listed by Marshall (2009) because of a passage in a paper by George Bolam (1896). When discussing the Ruff, Bolam said “I have at various times seen birds in the late Mr Brotherston’s shop, but never an adult in winter dress, and I know that he used to regard the immature plumage as that of the adult in winter”.

However, it is clear from several mentions of Brotherston in *The Birds of Berwickshire* by G Muirhead that Andrew Brotherston was based in Kelso, not Berwick. Unless Berwick connections can be found he might not qualify for this list.

**John Brown**

Was listed in *Kelly’s Directory* as a taxidermist at 51 West Street (1902).

**John Hogarth**

Was listed in *Kelly’s Directory* for 1894 at 20 Hide Hill.

**Cullercoats**

**J Taylor**

J Taylor is mentioned in a paper by Charlton (1911): on page 131 he thanked “Mr J Taylor, formerly taxidermist, Cullercoats, for notes concerning the Bittern, &”.

**Dudley**

**James Foote**

Was listed in *Kelly’s Directory* (1921-1929).

**Haltwhistle**

**Robert Liddell**

Was listed in *Kelly’s Directory* (1921-1934) at Main Street, Corrowdale, Haltwhistle.

**D Byers**

Was listed by Herriott (1968) as working in Haltwhistle in the 1930s. Examples of his work are in Carlisle Museum.

**Hexham**

**William Swinburne**

According to Marshall (2009), William Swinburne of Back Street, Hexham, was listed in Slater’s *Royal National Commercial Directory of the Northern Counties* for 1854-1855.

**Morpeth**

**J and George Anderson**

Were listed in *Kelly’s Directory*, for 1890 at Dragon Yard.

**John Batey**

The *Newcastle Courant* reported on 5 October 1849 that a Grey Phalarope had been shot on Morpeth High Common and was in the hands of John Batey “the eminent animal preserver” of Morpeth.

**Francis and Louisa Wood**

Francis Wood (of King Street, Morpeth) was listed in *Kelly’s Directory* for Northumberland in 1902. In 1921 Mrs Louisa Wood was listed, at 98 Newgate Street.
A short note by T H Archer of Newcastle upon (1893) includes the passage “The specimen I recorded in the March ‘Naturalist’, and which I dissected and stuffed, had been feeding on small shrimps . . .”

A Baldwin
Was listed in several trade directories, 1892-1899, at 42 Side.

T Bates
Thomas Bates had several addresses, mainly in Bailiffgate, a street redeveloped in the late 19th century and now equating to the first 100 metres of the eastern end of Westgate Road (near the junction with Nicholas Street). This address was very handy for the Newcastle Museum, prior to its move to Barras Bridge.

In Kelly’s Directory for 1894 T Bates and Son was at Darn Crook, and Thomas Bates at Barrow’s Court (Newgate Street) – were these two separate premises for one business?

Information from descendants (via Michael Turner, pers. comm. 2015) suggests links to Thomas Newman Bates (1830s-1890s) and his son George Newman Bates (1855 – circa 1912). On the latter’s marriage certificate, his father gave his occupation as taxidermist (although when GN Bates was born (1855) his father was described as a Master Hatter with his address at the Black Gate, Castle Garth). A family tradition is that some of GN Bates’s work was in the Hancock Museum.

Addresses:
- Variously as 4, 5 and 7 Bailiffgate circa 1859-1888
- Recorded once at 21 Westgate Street 1863
- Later seems to have removed to Barrows Court (now covered by part of the Eldon Square shopping centre) 1891-1894
- Traded as T Bates and Son at Darn Crook 1890-1896
- 8 Low Friar Street 1902

A letter in the archives of the Natural History Society of Northumbria, from John Hancock to the Dowager Marchioness of Normanby in 1879 mentions giving birds to Mr Bates “the person who stuffs the specimens for the Newcastle Museum”. Another letter, from John Hancock to Richard Howse in 1880, discusses getting “a young Razorbill in the nest plumage & Bates now has it to stuff for the museum”.

William Tuke wrote to John Hancock in 1881 and alluded to correspondence with Bates, who had stated that he had worked for the Newcastle Museum under Hancock’s direction for some years. In reply, Hancock said “I have known Bates (whom you enquire about) for many years. The Birds he has done for our museum pretty well but I generally touch them up a little before they are cased. I can say this however, his specimens are much superior to what are generally seen in public museums and I think he could do very well to put your collection in order. He has been at work upon something of the same kind for the Sunderland Museum and I believe he has given satisfaction”. There is no signed example of his work in the collections of Tyne and Wear Museums.

John Bigger
In an article on Natural History in the Newcastle Weekly Chronicle (29 March 1919), Charles Wain said “I met a reader in the Hancock Museum the other day ... Mr John Bigger of 51 Coward St is a specialist in the art of taxidermy”.

Thomas M Charlton
Is known from trade directories circa 1887–1890, at 22 Howard Street.

W Charlton (1823-1900)
Is known from trade directories. Also, the Newcastle Weekly Courant recorded his death, age 77, at the residence of his son-in-law William R. Moran (172 Hotspur Street, Heaton) on 28 September 1900.

Address:
- Traded at three addresses on Newgate Street, 1877-1899. Not listed in directories after 1899.
- 97 Newgate Street 1873
- 118 Newgate Street 1877
- 113 Newgate Street 1880-1899

T Craster
Was listed in Ward’s Trade Directory in 1851 at Saville Row.

George Cummings
Was listed in Kelly’s Directory (1890-1894) at 37 High Friar Street.

Robert Duncan and family
The longest-serving firm of professional Bird and Animal Preservers in Newcastle was Robert Duncan and family, who were listed in Trade Directories between 1844 and 1913. It is likely that a lot of birds in Lord Ravensworth’s collection were mounted by Duncan, but only 17 birds in Tyne and Wear Museum’s collection are housed in cases signed by him. These include some of the larger display cases, for instance TWCMS: H15821 (A White-tailed Eagle, dated 1877) and TWCMS: H14957 (a Gyrfalcon, dated 1856).

Newcastle Courant 13 July 1855 reported that a mature female Pectoral Sandpiper in Summer plumage had been shot on 27 June on Whitley Sands by Robert Duncan Jr, animal preserver, Newcastle upon Tyne.
Addresses:
Saint Andrew’s Court, where Duncan traded, ran back from the east side of Pilgrim Street, opposite Hood Street. Not listed in directories after 1913.

<table>
<thead>
<tr>
<th>Address</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 St Andrew’s Court</td>
<td>1844-1855</td>
</tr>
<tr>
<td>25 Pilgrim Street</td>
<td>1855</td>
</tr>
<tr>
<td>11 St Andrew’s Court</td>
<td>1857-1888 and 1894</td>
</tr>
<tr>
<td>(possibly, the same building had two street addresses)</td>
<td></td>
</tr>
<tr>
<td>43 Pilgrim Street</td>
<td>1889-1895</td>
</tr>
<tr>
<td>45 Pilgrim Street</td>
<td>1895-1913</td>
</tr>
</tbody>
</table>

Thomas Ellison
Was recorded in trade directories between 1827 and 1855, but his movements cannot be known precisely because the directories cover only a few isolated years over that period. Angas Court (also known as Angus Court) was demolished for the extension of Grainger Street between the Bigg Market and Westgate Road. His last address, Shakespeare Street, runs along the side of the Theatre Royal and was definitely an up-market move.

Ellison was listed as a Bird Preserver (rather than Animal Preserver) in Parson’s Directory for 1834. On 4 October 1834 the Newcastle Courant reported that a White-tailed Eagle had been shot near Shields and was in the possession of Mr Ellison. In 1841 he prepared a Goshawk shot in Northumberland, subject of a note by T J Bold in The Zoologist in 1845 (3: 823).

Newcastle Courant 29 May 1830. “On Tuesday last, a fine specimen of the Golden Thrush, or the Golden Oriole, was shot on the estate of Cuthbert Ellison Esq. M.P., of Hebburn, near Newcastle, and is now deposited in the hands of Tho. Ellison, animal preserver, No. 3 Angas’s Court, Newcastle, for Preserving”. This bird was later in the possession of John Hancock and came to the Hancock Museum – it was listed by Howse (1899) in his list of birds in the Hancock collection.

Addresses:
(not recorded in the 1824 directory)
Court 24 Bigg Market 1827
3 Angas Court 1833-1839
7 Shakespeare Street 1844, 1855

G A Emory
Was listed in trade directories 1914-1916, at 43 Corporation Street.

T H Gibb
Was listed in trade directories in 1857 at 93 Clayton Street.

J Gibson
Was listed in trade directories in 1853 at Hanover Terrace.

Mrs H M Grant
Was listed in trade directories. Apparently a short-lived business, only recorded at 4 Blenheim Street in 1877, it seems to have taken over from W Hepple (who was recorded at the same address in 1875).

John Hancock
The best-known Newcastle taxidermist, he only rarely advertised as such in the directories. He is recorded as such at his home address of 4 St Mary’s Terrace in 1855 and 1860.

The Hancock Museum has hundreds of examples of John Hancock’s work. His collection was the basis of the Bird Gallery until the 1970s and then was used for the synoptic series of British birds around the balcony. Almost all of the specimens are now in storage.

There is one example of signed work by John Hancock in Tyne and Wear Museums collections: a Gyrfalcon (TWCMS : B3037) on a plaster base that is signed “J. Hancock 1857”. However, a pair of Snowy Owls (TWCMS : H15820) may be further examples of Hancock’s work: a letter (in Sunderland Museum curatorial files) from Hancock to Lord Ravensworth discusses two Snowy Owls mounted and placed on plaster rocks at a cost of six guineas.

J Harris
Was listed in trade directories 1906-1910, at 15 Clayton Street.

John Henderson
An item from the reports of the Police Courts in the Newcastle Courant for 6 June 1876 concerned a woman lodging with John Henderson, a bird preserver “residing at 75 Blenheim Street”. This implies that Henderson lived at the address rather than carried out a business there: was he an employee of one of the taxidermy firms such as Duncan?

W Hepple
Is known from trade directories to have been active at four addresses in the Westgate Road area between 1866 and 1875.
Addresses:
29 Wellington Terrace 1866-1867
3 Westgate Hill 1869-1872
165 Westgate Road 1873
4 Blenheim Street 1875

W Hodge
Was listed in Trade Directories in 1873, at 15 Brunswick Place. The street where he traded is off the west side of Northumberland Street, the home of the Brunswick Chapel and (now) one side of Fenwick's department store. Another taxidermist, James R Ryott, had a business at 2 Brunswick Place in 1847.

John Jackson
John Jackson had probably the most prestigious address (on Grey Street) of any of Newcastle's professional Bird and Animal Preservers. He was trading at 26 High Bridge between 1888 and 1897 and later at Reid's Chambers, 53 Grey Street 1898-1906. The two addresses may have been the same building, and several businesses operated from the address. The building still stands, on the corner of High Bridge and Grey Street (south side of High Bridge, west side of Grey Street)

Of the 12 taxidermy practitioners listed in Kelly's Directory in 1894, only Jackson was listed as “Taxidermist” – the other 11 as “Bird and Animal Preservers”

Two birds (a Glaucous Gull, TWCMS: H15816 and a Woodcock, TWCMS: H15806) in Tyne and Wear Museums collections, formerly at Saltwell Towers, are labelled as being the work of John Jackson, his name being written in pencil on the inner face of the left side of the case.

George Midgeley
Was listed in Kelly's Directory for 1890, at 86 Darn Crook – yet another taxidermist in Darn Crook, alongside T Bates and Aaron Vineberg.

Alex Paul
Alex Paul was listed as a bird preserver – rather than an animal preserver – in Parson and White's directory for 1827 at Court 4, Newgate Street.

R Purdy
Was listed in trade directories in 1877 at 11 William Street.

Joseph Thomas Richards
Was listed once in Kelly's Directory, for 1894, at 139 Market (possibly one of the stalls in the Grainger Market?)

Joseph Robson
Was listed in Kelly's Directories (1890-1894) at 67 High Friar Street.

James R Ryott
James Russell Ryott is known as an artist (see entry in Marshall Hall's The Artists of Northumbria). Active as an artist from the 1820s onwards, he did animal, sporting, landscape and portrait paintings in oil and watercolour. He was the father of the artist William Ryott (1817-1883). He advertised only once as a taxidermist, in the trade directories 1847 at 2 Brunswick Place.

D Smith
Was listed in trade directories 1857-1869 at 10 Westgate Street.

RS Tuart
Was listed in trade directories in 1851 at Pandon Bank.

Joe Turner
Was listed in trade directories in 1902 at 11 Fuller Road.

Aaron Vineberg
Was listed in Kelly's Directory for 1894 at Darn Crook. This short street also housed Thomas Bates and Son's business, suggesting there might have been some link.

John Wardle
A fairly early taxidermist and one of the few with an “up-market” address: Brandling Place is in Brandling Village, Gosforth. I have seen no examples of his work.

Addresses:
Ravensworth Place 1833
Brandling Place 1837-1839

Edward Watson
Was listed in trade directories in 1847 at Friar's Green.

TB White
Was listed in trade directories in 1913 at 15 Clayton Street, so he might have been in a short-term partnership with TC Forster.

Peter Wilson
Was only listed once, in Kelly's Directory for 1894 at 50 Market (possibly one of the stalls in the Grainger Market?).
Richard R Wingate
Richard Wingate was often recorded in trade directories as a brush maker rather than a taxidermist. One directory has him as an Animal – rather than Bird – Preserver. His role in the early history of the Newcastle Museum and as an influence on the young John Hancock and Joshua Alder is well known. He did a lot of repair work on specimens in the Allan Museum, and re-mounted the famous Wombat before it was illustrated by Robert Bewick.

Addresses:
Westgate  1824-1834
2 Strawberry Place  1837-1839
9 Spring Gardens Terrace  1844-1855

North Shields

John Hogarth
Was listed in Kelly’s Directories (1890-1894) at 194 Stephenson Street.

Nunwick
An entry in Marshall (2009) for “RT Thompson” of Nunwick is misleading. Richard Heywood Thompson (1850-1935) owned Nunwick Hall, which is in Great Salkeld, (Cumbria), and not in the village of Nunwick (Northumberland).

Rothbury

Thompson
Thompson of Rothbury is mentioned in a paper by FB Whitlock (1892) about interbreeding of Merlin and Kestrel. The alleged interbreeding was written up in manuscript by Mr Thompson of Rothbury, who must have died between writing a report in 1887 and Whitlock’s visit in May 1892 when he was “the late” Mr Thompson. (Please note that Thompson of Rothbury is not to be confused with Thompson the innkeeper of Harbottle, whom Whitlock met in May 1892).

“I have since learnt that the two birds were given to an innkeeper at Alwinton, who in turn passed them on to Mr Thompson, who did a little bird-stuffing in his leisure time”.

Seaton Deleval

William Richardson
William Richardson is mentioned in a paper by JM Charlton (1911). On page 131 he thanked “William Richardson (taxidermist), Seaton Deleval [sic], for much information regarding occurrences at Holywell and Deleval”.

Whittingham

A. Hepburn
A chapter on PRACTICAL TAXIDERMY (pages 757–769) in S. Maunder, 1848, The Treasury of Natural History, was “kindly furnished by Mr. A. Hepburn of Whittingham, an enthusiast in the pursuit of Natural History”. The chapter describes the preparation of a range of animals.

Whitley Bay

G Wright
G. Wright is mentioned in a paper by JM Charlton (1911). On page 131 he thanked “Mr G. Wright (taxidermist), Whitley Bay, for supplying me with information regarding several rare specimens which have passed through his hands”.

Wooler

William Hall
The Newcastle Weekly Courant for 1 December 1888 reported that a Great Grey Shrike had been caught on 26 November in the garden of William Hall, “bird preserver at Wooler”.

William Hall was listed in Kelly’s Directories 1921-1929 at Ramsey’s Lane, and in 1934 at Cheviot Street, but given the gap in years this could be two different people.
COUNTY DURHAM

Barnard Castle

Robert Carter

Was listed in *Kelly’s Directories* (1890-1902), at 40 Bank.

Bishop Auckland

John Gornall

Was listed in *Kelly's Directory* for 1890 at 36 Surtees Street.

Mr Smith

The *Northern Echo* for 10 June 1882 reported that “a fine specimen of the Sweet Martin Cat … has been trapped at Hoppyland Park, the residence of Mr Blenkinsop, J.P., and is now in the possession of Mr Smith, bird preserver, Bishop Auckland. It is now about forty years since an animal of this kind was captured in this district”. The note is interesting as a rare record of Pine Marten as much as for the record of this taxidermist. Hoppyland Hall is near Hamsterley.

Crook

W Rawe

In October 1927 Mrs Rawe gave Sunderland Museum a collection of mammals and birds set up by “the late William Rawe of Farrer’s Arms, Bankfoot, Crook”. Most of the specimens were sent to Ashburne House in 1927 and their fate from then is not known. However there are 74 birds still in the museum and catalogued as being prepared by William Rawe: all are exotic species, and were possibly deceased caged birds.

Darlington

JW Geldard

Was listed in *Kelly’s Directories* (1902-1914), at 21 Archer Street. His Christian names were Jarvis Watson (Marshall, 2009 (where his surname is given as Gelard), after Merchant 2005).

George Noble

According to Marshall (2009), he was listed in Pigot and Co. *National Commercial Directory of Durham, Northumberland and Yorkshire* for 1834 at Skinnergate.

Robert Noble

Was listed in *Kelly’s Directories* 1890 - 1902 at 33 Skinnergate.

East Blackdene

Thomas Coulthard

East Blackdene, a hamlet in upper Weardale, is an unlikely place to find a taxidermist. The *Northern Echo* for 5 November 1897 reported that a Barnacle Goose had been shot in Middlehope and was in the hands of “Mr Thomas Coulthard, animal and bird preserver, of East Black Dean”.

Durham

Cullingford family

A pair of Great Bustards in Sunderland Museum (TWCMS : B1154 and B1155) are labelled as having been prepared by Cullingford of Durham. Since the birds date from 1893, they are probably the work of John Cullingford, preserver of birds and mammals at Durham University Museum.

A case containing three Snow Buntings also in Sunderland Museum has a suggestion written on the base that they may have been stuffed by “Cunningford” of Durham. The simple layout of birds in the case is typical of Cullingford’s style.

Joseph Cullingford was listed in *Kelly’s Directory* for 1902at Palace Green (1890-1902). Mrs Elizabeth Anne Cullingford was listed in *Kelly’s Directories* at Palace Green, 1914-1921.

Charles Hy Palmer

Was listed in *Kelly’s Directory* for 1890 at 75 Hallgarth Street.

William Proctor

Taxidermist to Durham University Museum

William Proctor was the only person in the north east to give his profession as Bird and Animal Preserver in the 1851 census. The address at that time was “Museum, 19 South Bailey”.

Durham University’s Museum was founded in 1833, the year after the founding of the University, and it was only the second university museum in England to be opened to the public. The first keeper, William Proctor, was appointed “to the charge of the Birds in the Museum” in 1834 at a stipend of £25. Proctor (1798-1877) was a carpenter’s apprentice who turned to natural history and specialised in taxidermy. His best-known exploit was a collecting trip to Iceland.
The Museum was first housed in the Fulling Mill, and then moved to South Bailey and later to Bishop Cosin’s Almshouses on Palace Green under the guardianship of Proctor’s successor, Joseph Cullingford.

A visitor in 1892 (Schonix, 1892) had “no hesitation in saying that their museum reflects no credit on the University of Durham” but also noted that there was a good collection of British birds that was nearly complete and included a number of rarities. However a chest on the floor of the museum contained dusty and unmounted birds.

By 1917 the University had decided to disperse much of the natural history collection to the departments.

Ferryhill

William Coates
Was listed in Kelly’s Directory for 1902 at East End, Sedgefield, Ferryhill.

Hartlepool

Mr Mann
Mr Mann of Hartlepool who “flourished late 19th century” was listed by Marshall (2009), the listing being based on information in “The Enchanted Aviary List”.

Joseph Clementson and Son
Was listed in Kelly’s Directory for 1902 at 50 Whitby Street and 10 Market Hall, West Hartlepool.

Jarrow

William Blaycock
William Blaycock of 25 Bladen Street was listed in Kelly’s Directories 1914-1929. He was also recorded as a taxidermist in Marshall (2009), based on information in Merchant (2005).

Thomas Malone
Was listed in Kelly’s Directory 1921 at 53 Grange Road.

Ludworth

Bob Lofthouse
Bob Lofthouse was a miner and an amateur naturalist of Ludworth, a mining village near Durham City. He was active in the early-mid 20th century and was still remembered locally in the first decade of the 21st century. His collection of mounted birds and mammals passed to Durham County Council, then onwards to their School Loans department and was finally donated to Tyne and Wear Museums. Many of the specimens are of small, local species (including a lot of Passerines and a few birds of prey). They are almost all housed in boxes made for the School Loans department, but a small number of what may have been Lofthouse’s original boxes remain.

Middleton-in-Teesdale

Nicholas Wearmouth
Nicholas Wearmouth (1826-1891) of Newbiggin (a small village two miles west of Middleton-in-Teesdale) was a village grocer and provision dealer and amateur naturalist, particularly active on the Yorkshire side of the Tees. In an obituary notice in The Naturalist in 1891, J Backhouse wrote: “For years, with untiring energy, Mr. Wearmouth (a self-taught taxidermist) collected and stuffed a vast number of birds, both British and Foreign, but chiefly the former, amongst which were many rare specimens from his beloved valley”.

Ryton

Edward Heppel
Was listed in Kelly’s Directory 1914 at 9 Thorpe Avenue.

South Shields

Robert Clarkin
A teal in a glass-fronted wooden case (TWcms:E2869) South Shields Museum’s collection has a label pasted inside stating “Preserved by Robert Clark South Shields 1842.”

Wards Directory for South Shields for the period include two Robert Clarks: 1) A shipowner and proprietor of the Cumberland Arms Inn, living at 45 East Holborn (1847 and 1850 directories), and 2) A brazier (1850 directory). It is quite possible that neither of these two was the taxidermist.
George Green

“Wandering Willie” was a dog (a Border Collie) that famously lived on the ferry between North and South Shields for several years and whose preserved body is in the Turk’s Head public house in Tynemouth.

A newspaper cutting about “Wandering Willie” (in South Shields Library) shortly after the dog’s death in 1880 stated that the taxidermy “has been entrusted to Mr G. Green, of Morton Street, South Shields, a taxidermist of considerable ability”.

No taxidermists called Green are known from local directories, and the 1880 directory for South Shields did not list a Mr Green in Morton Street. The 1881 census for South Shields listed Mr George Green (age 29), his wife Sarah (age 30) and four children, living at 12 Morton Street. George Green was born in Monmouth and Sarah in Hexham but the children were born in South Shields, indicating that they had lived in the town at least 4-5 years. George Green’s occupation was given as House Joiner.

William Marshall

Was listed in Kelly’s Directory for 1902 at 27 Long Row.

William Yellowly (1823-1893)

William Yellowly – sometimes written as Yellowley – of 5 East Catherine Street, South Shields was by profession a pharmacist, although he also advertised in Directories as an “animal and bird preserver”. He obtained specimens, among others from Wombwell’s, Mander’s, Edmonds’s and Bostock’s travelling menageries. He seems to have retired young, since an obituary (at age 70) stated that he retired into private life “many years ago”. He was Honorary Curator at the South Shields Museum, serving on the Museum’s committee for 19 years and lending them his extensive collection of birds and mammals in addition to whatever unrecorded donations he made.

Yellowly’s collection was bought by the shipping magnate Sir Walter Runciman, who presented it to South Shields Museum in 1921. The collections are now in the care of Tyne and Wear Museums.

Printed advertisements for his taxidermy work singled out notable specimens. A “splendid stuffed cape lioness … in a recumbent position”, dating from 1864, is probably TWCMS : A152 (which is currently on loan to the GNM: Hancock). Three other of his lions, of which he seems to have been particularly proud, survive: 1) “Wallace”, who is one of the key historic exhibits of Sunderland Museum (TWCMS: H14703); 2) a male, in the style of Wallace (formerly of South Shields Museum), and 3) a prowling female (TWCMS:H14702, formerly of Sunderland Museum). However another of his masterpieces, a Boa Constrictor in the act of destroying its prey, has not survived and there are no known photographs of it. His one surviving “masterpiece” example of bird taxidermy is a White-tailed Eagle with the wings outstretched.

Spennymoor

T Alderton


TB Dunn

TB Dunn of Spennymoor was listed by Herriot (1968); a racing pigeon “Prince of Rome” by him is in Derby Museum.

Mrs Jane Hann

Was listed in Kelly’s Directory for 1890 at Byer’s Green, Spennymoor. She was possibly related to the Thomas Hann of Byer’s Green listed by Marshall (2009).

Staindrop

George Harrison

A pair of Redpoll in Tyne and Wear Museums collection (TWCMS: B1186) is in a case with a trade label for George Harrison, Bird and Animal Preserver, Staindrop. According to Marshall (2009), he was listed in Slater’s Royal National Commercial Directory of the Northern Counties for 1854-1855.

Stanhope

William Clark

According to Marshall (2009), William Clark of Stanhope was listed in Slater’s Royal National Commercial Directory of the Northern Counties for 1854-1855.
Charles F Tinkler and his brother
Charles F Tinkler, of Front Street, Stanhope, was listed in Kelly’s Directories 1890-1921.

JW Fawcett (1901) said that when dozens of Waxwings were shot in 1870 “the Tinkler brothers, the local taxidermists, preserved over 60 specimens for various persons”.

Stockton

Thomas Green
According to Marshall (2009), Thomas Green of Huswife’s Lane Stockton was listed in Slater’s Royal National Commercial Directory of the Northern Counties for 1854-1855.

Thomas Campion Lambert
Was listed in Kelly’s Directory for 1890 at 81 Queen Street East, South Stockton.

Robinson Walker
Robinson Walker of Stockton on Tees (of unknown dates) was listed by Marshall (2009), based on information provided by CJ Devlin.

Sunderland

In addition to those mentioned below, the 1883 directory lists six Bird Dealers, none of whom were bird/animal preservers: presumably they ran pet shops.

G Barnes
Is known from trade directories only.

Addresses:
51 Sans Street 1877
Borough Road 1880

John Egglestone
John Egglestone never seems to have advertised in the directories. However in 1910 he gave the profession “naturalist” against his name in the Names section, although he was not listed in the Trades and Professions section. In 1889 his address was 10 Salem Hill.

John Egglestone, who was employed as an attendant at Sunderland Museum, fell in the River Wear and his body was found on 31 December 1909 (see reports in the Daily Echo in the cuttings book in Sunderland City Library). In addition to his job in the Museum, he was a dealer in Natural History specimens. Although there is little known about his business he is known to have sold some mounted birds and mammals to Sunderland Museum: for instance, the Museum bought a juvenile Polar Bear (TWCMS: 2001.501) from Egglestone in February 1888 for £12. We do not know whether Egglestone did the taxidermy or if he was only acting as a dealer.

T Proud
Was listed in trade directories (1859) at 11 Broad Street, Monkwearmouth.

Mrs Ann Simpson
Some work is needed to clarify the relationships of the Simpsons who were recorded as Animal and Bird preservers: it cannot just be coincidence that Mrs Ann Simpson operated in 1880-1887 from the same address (28 Church Street) where Thomas Simpson operated in 1859. In 1890 her address was given as Burdon Lane.

In 1873 Mrs Simpson was not listed in the Trades section of the directory, but in the Names section her profession was given as Naturalist. In 1877 her profession was given as Bird Stuffer.

Thomas Simpson
(See Mrs Simpson, above). In 1869 Thomas Simpson was not listed among the Trades section of the directory, but in the Name section his profession was given as Animal Preserver. According to Marshall (2009), he was listed in Slater’s Royal National Commercial Directory of the Northern Counties for 1854-1855 as living in Church Street.

Addresses:
Church Street 1854-1859 (number 28 Church Street, in 1859)
7 Hendon Road 1880-1883
5 Hendon Road 1887-1890

J Thomas
Was listed in trade directories (1880-1887) at 77 Trimdon Street.

Swalwell

Thomas Robson
(See Turner 2013).
This Thomas Robson (#1) is not to be confused with a second ornithologist of the same name (#2), author of Birds of the Derwent Valley (1896). A footnote in that book says that Thomas Robson #1 had a “self-made” collection of stuffed birds.

Thomas Robson #1 was born at Ryton on 22 March 1812. He was employed as a young clerk by Crowley, Millington and Co. of Swalwell. In 1862 he emigrated to Turkey but before doing so sold his collection. The larger birds were bought by Col. JA Cowen;
others, including a Great Reed Warbler (a first British record), were bought by Mr Thomas Thompson and bequeathed to the Hancock Museum in 1904. Robson continued to collect specimens in Turkey until his return to England in December 1883. He died on 5 January 1884.

YORKSHIRE

Wycliffe

(Included here because of the historically important link between Marmaduke Tunstall and John Goundry)

John Goundry

We know of John Goundry through George Townshend Fox’s *Synopsis of the Newcastle Museum* (1827) and Thomas Bewick’s autobiographical *Memoir* (1862). John Goundry of Wycliffe did taxidermy work for Marmaduke Tunstall (1743-1790). Fox referred once, on page 244, to Old John Goundry, Mr Tunstall’s “joiner and bird-stuffer”, who was still living at Wycliffe in 1827. Goundry was a tenant on the Wycliffe estate, his house being shown on a plan of 1789 by John Bailey (in the Burton Constable archive) as being beside the church and river, with a garden of 20 perches.

John Goundry was certainly preparing specimens in 1790, when he stuffed a Stoat for William Salvin (letter from Tunstall to William Salvin, 24 May 1790). Goundry probably also prepared a male and female Scaup in December 1788, the first specimens of that species Marmaduke Tunstall had seen. The pair of Scaup survived in the museum at least until 1827 but was discarded before 1884. It is not possible to say with certainty that any of the mounts that do still survive are John Goundry’s handiwork: Tunstall’s museum was probably largely assembled prior to 1776 and lay in London until 1783, and it is unlikely that specimens would be sent from London to Wycliffe for stuffing.

ACKNOWLEDGEMENTS

I would like to thank Eric Morton and June Holmes, and the librarians of the City Libraries of Newcastle and Sunderland and of the Newcastle Literary and Philosophical Society, for the help they have given during the long preparation of this list.

REFERENCES

FOX, G T (1827). *Synopsis of the Newcastle museum, late the Allan, formerly the Tunstall, or Wycliffe museum*. Newcastle.
**DIRECTORIES SEEN**

In this list, titles are indicated by abbreviation and year: *A General Directory* is indicated by GD; *Parson and White*’s by PW; *Kelly*’s by K *Richardson*’s by R; *Ward*’s by W; *Whelan* by Wh; *Williams* by Wi; *Directory of the Towns of Newcastle and Gateshead* by DT


**Durham City**   PW1827, DT1833, P1834, DT1837, W1847, W1853

**County Durham**   K1890, K1894, K1902, K1914, K1921, K1929, K1934

**Northumberland**   K1890, K1894, K1902, K1921, K1929, K1934

<table>
<thead>
<tr>
<th>Name</th>
<th>see under town</th>
<th>Name</th>
<th>see under town</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alderton, T</td>
<td>Spennymoor</td>
<td>Harris, J</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Anderson, J &amp; George</td>
<td></td>
<td>Harrison, George</td>
<td>Staindrop</td>
</tr>
<tr>
<td>Archer, TH</td>
<td>Newcastle</td>
<td>Henderson, John</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Baldwin, A</td>
<td>Newcastle</td>
<td>Hepburn, A</td>
<td>Whittingham</td>
</tr>
<tr>
<td>Barnes, G</td>
<td>Sunderland</td>
<td>Heppe, Edward</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Bates, T</td>
<td>Newcastle</td>
<td>Hepple, W</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Batey, John</td>
<td>Morpeth</td>
<td>Hodge, W</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Bigger, John</td>
<td>Newcastle</td>
<td>Hogar, John</td>
<td>Berwick</td>
</tr>
<tr>
<td>Blaylock, William</td>
<td>Jarrow</td>
<td>Hogar, John</td>
<td>North Shields</td>
</tr>
<tr>
<td>Brotherston, Andrew</td>
<td>Berwick</td>
<td>Jackson, J</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Brown, John</td>
<td>Berwick</td>
<td>Lambert, Thomas C</td>
<td>Stockton</td>
</tr>
<tr>
<td>Byers, D</td>
<td>Haltwhistle</td>
<td>Liddell, Robert</td>
<td>Haltwhistle</td>
</tr>
<tr>
<td>Carter, Robert</td>
<td>Barnard Castle</td>
<td>Lofthouse, Bob</td>
<td>Ludworth</td>
</tr>
<tr>
<td>Charlton, Thomas M</td>
<td>Newcastle</td>
<td>Malone, Thomas</td>
<td>Durham</td>
</tr>
<tr>
<td>Charlton, W</td>
<td>Newcastle</td>
<td>Mann</td>
<td>Hartlepoo</td>
</tr>
<tr>
<td>Clark, Robert</td>
<td>South Shields</td>
<td>Marshall, William</td>
<td>South Shields</td>
</tr>
<tr>
<td>Clark, William</td>
<td>Stanhope</td>
<td>Midgeley, George</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Clementson, Joseph &amp;on Hartlepool</td>
<td></td>
<td>Newton, Thomas</td>
<td>Alnwick</td>
</tr>
<tr>
<td>Coates, William</td>
<td>Ferryhill</td>
<td>Noble, George</td>
<td>Darlington</td>
</tr>
<tr>
<td>Coulthard, Thomas</td>
<td>East Blakdene</td>
<td>Noble, Robert</td>
<td>Darlington</td>
</tr>
<tr>
<td>Craster, T</td>
<td>Newcastle</td>
<td>Palmer, Charles Hy.</td>
<td>Durham</td>
</tr>
<tr>
<td>Cullingford family</td>
<td>Durham</td>
<td>Paul, Alex.</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Cummings, George</td>
<td>Newcastle</td>
<td>Proctor, William</td>
<td>Durham</td>
</tr>
<tr>
<td>Duncan family</td>
<td>Newcastle</td>
<td>Proud, T</td>
<td>Sunderland</td>
</tr>
<tr>
<td>Dunn, TB</td>
<td>Spennymoor</td>
<td>Purdy, R</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Egglestone, John</td>
<td>Sunderland</td>
<td>Rawe, W</td>
<td>Crook</td>
</tr>
<tr>
<td>Ellison, Thomas</td>
<td>Newcastle</td>
<td>Richards, Joseph T</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Emory, GA</td>
<td>Newcastle</td>
<td>Richardson, William</td>
<td>Seaton Delevaux</td>
</tr>
<tr>
<td>Foote, James</td>
<td>Dudley</td>
<td>Robson, Joseph</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Forster, TC</td>
<td>Newcastle</td>
<td>Robson, Thomas</td>
<td>Swalwell</td>
</tr>
<tr>
<td>Geldard, JW</td>
<td>Darlington</td>
<td>Ryott, James R</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Gibb, TH</td>
<td>Newcastle</td>
<td>Simpson, Mrs Ann</td>
<td>Sunderland</td>
</tr>
<tr>
<td>Gibson, J</td>
<td>Newcastle</td>
<td>Simpson, Thomas</td>
<td>Sunderland</td>
</tr>
<tr>
<td>Gornall, John</td>
<td>Bishop Auckland</td>
<td>Smith</td>
<td>Bishop Auckland</td>
</tr>
<tr>
<td>Grant, Mrs HM</td>
<td>Newcastle</td>
<td>Smith, D</td>
<td>Newcastle</td>
</tr>
<tr>
<td>Green, George</td>
<td>South Shields</td>
<td>Swinburne, William</td>
<td>Hexham</td>
</tr>
<tr>
<td>Green, Thomas</td>
<td>Stockton</td>
<td>Taylor, J</td>
<td>Cullercoats</td>
</tr>
<tr>
<td>Hall, William</td>
<td>Wooler</td>
<td>Thomas, J</td>
<td>Sunderland</td>
</tr>
<tr>
<td>Hancock, John</td>
<td>Newcastle</td>
<td>Thompson</td>
<td>Rothbury</td>
</tr>
<tr>
<td>Hann, Mrs Jane</td>
<td>Spennymoor</td>
<td>Thompson, RT</td>
<td>Nunwick</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tinkler, Charles F</td>
<td>Stanhope</td>
</tr>
</tbody>
</table>
**KATHLEEN BEVER BLACKBURN: A DISTINGUISHED BRITISH BOTANIST**

Alan L Hart
C/o Archives and Library, Natural History Society of Northumbria,
Great North Museum: Hancock, Newcastle-upon-Tyne, NE2 4PT
hartalan1@gmail.com

**SUMMARY**
Kathleen Blackburn was an academic botanist in Newcastle-upon-Tyne for nearly 40 years being appointed as a lecturer in 1918. As well as her teaching, she made significant contributions to plant genetics and cytology and to pollen analysis. This article on her life and work is based principally on archival material held in the library of the Natural History Society of Northumbria.

**INTRODUCTION**
Kathleen Bever Blackburn was a botanist on the academic staff of Durham University at Newcastle upon Tyne for nearly 40 years. In 1918 she was appointed to lecture in botany at Armstrong College, Durham University at Newcastle upon Tyne.. She was made Reader in Cytology, King’s College1, Durham University at Newcastle upon Tyne in 1947, retiring in 1957. She was an important figure in botanical research in the United Kingdom, and internationally in the 20th century. Her principal contributions were in plant cytology and genetics, and pollen analysis.

Blackburn died in 1968, not all that long ago in archival terms but long enough for memories of her to fade significantly. Documents belonging to her and other material about her are held in the archives of the Natural History Society of Northumbria, of which she was a member. The intention of this article is to provide a review of her archive in order to bring her and her contributions back into view again.

**METHODS**
There are some two dozen file boxes of material about her in the archives of the Natural History Society of Northumbria housed in the Great North Museum: Hancock Library, Newcastle upon Tyne. This material and some from other sources were examined to build up a picture of her and her career. Her archive includes her published papers, but as is noted later, much of the other material is fragmentary, making it difficult to comment on factors which underlay her scientific contributions although the broad outlines of her career are usually visible. Some of the material, such as newspaper cuttings, is unattributed. University calendars, theses possibly written by her students and other references to or by her in the literature, were examined in order to augment material in the archives.

---

1 King’s College became University of Newcastle upon Tyne in 1963.
DISCUSSION

Kathleen Blackburn was born in 1892. She attended Bedford College, University of London, gaining a B.Sc. (1912) and M.Sc. (1914). She was a lecturer in botany at the Southlands Training College, Battersea, London from 1914-1916, and appointed lecturer in botany at Armstrong College, Newcastle upon Tyne in 1918. (Her own notes, written a few years before her death, say 1916; other sources say 1918.) A D.Sc. was awarded from the University of London in 1924. She was a Fellow of the Linnean Society by 1927. She was made Reader in Cytology, Kings College (Durham University) at Newcastle upon Tyne, in 1947. A letter to her indicates that she was “Supervisor of Research” in the Department of Botany, Kings College in 1949. She retired in 1957.

Her first published work was an anatomical study of vascular tissue in seedlings, principally from the *Ranunculaceae* (Blackburn 1917). Then her cytological skills formed the basis of a study of chromosome complements of British roses (Blackburn and Heslop-Harrison 1921). The basic chromosome number (x) in *Rosa* spp. was determined to be seven. Different forms of roses were in fact polyploids arising by hybridisation. Examination of the chromosomes was a means of clarifying taxonomic relationships (Blackburn, 1925; Blackburn and Heslop-Harrison 1924). (When out collecting plants near Morpeth, Northumberland, she discovered a new species of rose, *R. berniciensis* (Daily Express 1929).)

Her work on roses made her reputation, both at home and abroad. Her attendance at the British Association meeting in Toronto in 1924 was noted in newspapers, for example *The Times* (1924): “...Blackburn ... adduced the genus Rosa ... [and] pointed out that the basal number of chromosomes in the nucleus of the cells of roses is seven ... there are other types with different combinations of the number seven ... hybridity was the cause of many of these forms ... investigation of the chromosomes might throw a new light on the relationships of the plants.” A suffragette magazine, *The Women’s Leader* (1924) said: “Botanical research is another field in which women will be represented ... Sir Frederick Keeble paid a glowing tribute... [Blackburn] had solved the well nigh insoluble riddle of cross-fertilization of the rose”.

She had hopes of finding sex chromosomes (X and Y chromosomes) in *Salix* and *Populus*, and she did find possible male chromosomes in *Populus tremula* (Blackburn and Heslop-Harrison, 1924). She then made a study of plants in the genus *Silene* (campions) and further enhanced her reputation when she established that female and male flowers of *Silene* spp. had X and Y sex chromosomes (Blackburn 1923, 1924). These differ in size and shape, and she was the first correctly to identify the Y chromosome as the larger of the two (in *Silene latifolia*). Prior to these discoveries by her and others it was not realised that any plants had sex chromosomes in the way that mammalian species do. Her papers on sex chromosomes in plants are still cited by current researchers (for example Kejnovsky and Vyskot 2010). In fact, X and Y sex chromosomes are quite rare in plants, occurring only in a minority of dioecious species (in which the male and female flowers are borne on separate individuals) a point appreciated by her (Blackburn 1929a). (The genera *Silax*, *Populas*, *Silene* all include dioecious species.)

In later papers (Blackburn 1927a, 1927b, 1933), she commented on the utility of chromosome numbers in understanding relationships among species in *Silene* and related genera. The basic chromosome number in *Silene* is 12. Polyploidy occurs only in two species: in one of these, *Silene ciliata*, a race has a haploid count of 96, is 16-ploid, yet this is not reflected in morphological differences between this race and those with smaller numbers of chromosomes. Without the study of chromosome complements, the existence of a genetically different race would not have been realised.

---

2 Letter of 31st August 1949 from the Director, McCaulay Institute of Soil Research, addressing

3 Sherardian Professor Botany, University of Oxford.
For this and other work, Blackburn was awarded the fifth Trail Award by The Linnean Society of London (1930). The Trail Award was established “to encourage study that throws light on the substance known as Protoplasm for the physical basis of life”. The citation includes “you may justly claim to have given the first definite proof of the existence of sex chromosomes in flowering plants, when in Lychnis alba (S. latifolia) you showed an XY pair of chromosomes in the male and a corresponding XX pair in the female” and “More recently you have investigated chromosome numbers in Silene and neighbouring genera. In this laborious work more than eighty species were studied”.

In 1934 some of her work caught the eye of the Eastern Daily Express, Glasgow Herald, The Times, The Daily Telegraph and the North Mail and Newcastle Daily Chronicle, perhaps because it entailed cricket. Growers of cricket bat willows had suffered substantial financial loss as half the trees resulting from setts planted 10-15 years earlier proved useless for making bats. The newspapers appear to have picked up a hope expressed in the 10th Annual Report of the Imperial Forestry Institute that a study of chromosome number and morphology in willow trees would form the basis of a test able to select for setts giving usable wood on maturity. Blackburn was named as Queen Willow (North Mail and Newcastle Daily Chronicle 1934). The work was done in collaboration with a PhD student (Wilkinson, 1934). Unfortunately, further work showed that in Salix alba var caerulea, the cricket bat willow, chromosome number and morphology were too complex and too difficult to observe to form the basis of a practical test (Wilkinson, 1939).

In 1942 she was one of the co-authors with Heslop-Harrison of a paper (Heslop-Harrison et al. 1942) concerning whether or not the chromosome number of Rosa spp could be correlated with the vitamin content, presumably of the hips. (Alternative sources of vitamin C were of interest during the war.)

These various discoveries were made through her skills as a cytologist (an expert in the structure and function of plant and animal cells). Her principal tools would have been the microscope, the microtome and an array of procedures to prepare specimens for staining and sectioning prior to placing them on microscope slides. At the time, images of chromosomes were seen and reported as not much more than dark blobs; it is a testament to her skills as a microscopist that she, and others, managed to infer any conclusions about chromosome structure and behaviour at all.

For chromosomal examination, Blackburn and her students appear to have generally used traditional stains such as haemotoxylin and Gentian Violet followed by embedding the specimens in wax prior to sectioning for study under the microscope. With regard to the use of chromosome number and morphology to elucidate taxonomic relationships, doubts about the ultimate usefulness of this approach had been expressed at least as early as 1930 (Leadbetter 2004) although Blackburn and her students continued to use it into the 1950s.

An advance in techniques for examining chromosomes that she and her students adopted, at least by 1939 (Wilkinson 1939), was the use of aceto-carmine to stain chromosomes in squashes of plant tissue. Aceto-carmine as a chromosomal stain was originally used by the American botanist (and Nobel prize-winner) Barbara McClintock. The technique was introduced to Britain in 1935 by another cytologist, Irene Manton (Leadbetter 2004). Manton was a graduate of the University of Cambridge, who was advised by Blackburn to spend some time as a post-graduate student in Stockholm. Manton later became head of the Botany Department at Leeds University and had a stellar career as a botanist and electron microscopist. The two remained in contact professionally, and were also personal friends.

The continued use of classical cytological techniques is a reflection of the fact that the cytochemical and biochemical techniques of molecular biology, which give very detailed insights into the structure and function of chromosomes, only became generally available after Blackburn retired. She was undoubtedly aware of electron microscopy, and appears to have had access to it, but did not turn to it in the way that Manton did at Leeds; none of her publications entail electron microscopy.

Blackburn’s cytological skills, apart from matters to do with chromosomes, were used in an investigation of the alga Botryococcus brauni (Blackburn 1935-36). This green alga is single celled but also colony forming; cells reside in cup-shaped spaces in a common matrix, and contain oil droplets. Fossilised remains of these colonies have been found in peats originating from the infilling of ponds (see for example Raistrick and Blackburn 1932a) and in “bog-head” coals formed from lake bottom sediments - boghead coals are a type of oil-shale coal and thus of considerable economic significance. (The occurrence of B. brauni in “bogheads” is further discussed in Temperley (1935-1936).) Blackburn’s archive contains two letters suggesting she was consulted by oil geologists with regard to botanical aspects of oil prospecting; one, dated 1938, from the Anglo-Iranian Oil Company (a precursor of BP) indicates that she received a sample of “proto-boghead” from Meninge, South Australia, and another dated 1939 from the Geological Survey Office refers to her “botanical evidence” that had been used in interpreting samples from boreholes for oil at Formby, south-west Lancashire. (B. brauni and other algae were not thought to be a major source of oil at Formby (Cope and Blackburn 1939).)

By the 1930s Blackburn had become adept at pollen analysis, especially of grains found in peat. The ability to identify pollen grains by light microscopy as belonging to a particular plant species, genus, or family enables conclusions to be drawn, for example about the distribution of plant in previous ages, climatic changes, the origin of soils, the age of fossils and human artefacts. The technique was developed in Scandinavia and began to be publicised outside Scandinavia in the 1920s (Erdtmann 1921). Blackburn learnt how to analyse pollen from a pioneer in Sweden, Lennart von Post (Lunn 1983), and was, perhaps, encouraged to take up the technique by her head of department, J W Heslop-Harrison (Lunn 2004b). She has been credited with introducing pollen analysis to Britain (Lunn 2004a), although Swedish and British scientists used pollen analysis to
study vegetational history in Britain well before she published papers entailing pollen analysis (Marshall 2005; West 2014a).

In 1929, a geologist who became a leading palynologist, Arthur Raistrick, was appointed to the Geology Department at Armstrong College (Marshall 2005). Blackburn collaborated with Raistrick on a study of glaciation and vegetation history in the North Pennines, looking for evidence to support the nunatak theory. Pollen in peat was extracted via a peat corer, cores being taken at sites ranging from shorelines to hilltop. The results of the study were published in a series of papers (Blackburn 1931a; Raistrick 1931; Raistrick and Blackburn 1932a); although nunataks with vegetation on them undoubtedly existed during the ice ages, the pollen analyses (and other considerations of plant distribution) suggested it was not necessary to postulate nunataks as the sole determinants of the present flora. Other work on vegetation history in Northumberland derived by pollen analysis is discussed in Raistrick and Blackburn (1931a) and Blackburn (1953). Her facility with pollen analysis meant that from the 1930s she became as well known for this work as for her skills as a plant cytologist. The technique was also avidly taken up by others in Britain (see for example, Godwin 1934a, 1934b; Raistrick 1932; West, 2014a, 2014b). Somewhat surprisingly, of the theses held in the Newcastle University library possibly written by students under her guidance, only one (Pearson 1954), entails analysis of pollen (from peat).

Other examples of her work using pollen analysis include:

- An analysis of two Lake District peats (Raistrick and Blackburn 1932b). They hoped that analysis of these samples would stimulate a wider study of Lake District peats, which in turn would augment a wider concurrent study of the peats of northern England.

- An account of the history of vegetation of the Linton Mires (originally a lake trapped by glacial moraines), Wharfedale, Yorkshire, to support a geological history of the area (Blackburn 1938 - 1950).

- Pollen extracted from peat collected on the island of Barra during the Hebridian expeditions was used to build up a picture of post-glacial vegetation (Blackburn 1946).

- The species giving rise to 140 tree pollen grains from a minute sample of peat on a nut of *Trapa natans* (water chestnut) washed up on the south-east shore of South Uist were identified (Heslop-Harrison, J W and Blackburn 1946). This information was used to support the nunatak theory. The apparent occurrence of *Trapa natans* in such a northerly location has become one of the questions surrounding some of the work of J W Heslop-Harrison (Sabbagh 1999, 2016).

- In 1944, she was a member of the North Tyne Regional Survey Committee, apparently set up within King’s College in the Department of Agriculture under the auspices of the Forestry Commission, to study geology, biology and land use in view of the rapid afforestation being carried out by the Forestry Commission north of the Tyne. What is now Kielder Forest was of particular interest. Her contribution was to comment on soils and peat bogs, pollen analysis forming a major basis for this. Kielder was a remote location in those days; members of the committee faced transport difficulties getting to and moving in the area. A letter from the Forestry Commission informed her that when she made a visit to the area (in 1944) there was every possibility that she would have access to a bicycle. Petrol was still an issue for committee members in 1948 (petrol rationing did not end until May 1950).

She also appears to have been a member of the “Newcastle Party” which in turn was part of “University Forestry Research” which looked at soils and plant cover over Northumberland as a whole - again she carried out pollen analysis in peat bogs.

She is noted (Clark 1983) as contributing to the recognition of Sites of Special Scientific Interest (SSSI), although her archive doesn’t contain any material specifically labelled as relating to SSSI’s.

In 1954, the Botanical Society of the British Isles set up the Distribution Maps Scheme to record the distribution of vascular plants in the British Isles. Blackburn’s involvement with this scheme continued after her retirement, although possibly only briefly as there is no material on the scheme in her archive dated later than 1960. Blackburn’s skills at reconstructing past vegetation using both pollen analysis and examination of larger fragments of plants were valued by archaeologists, particularly those working along Hadrian’s Wall and elsewhere in the North East. Apart from work on an elk skeleton at Neasham (below), her archive contains just two other references to archaeology. One is correspondence with the leader of a dig (Aileen Fox in 1951/1952) at Kestor Rock, Dartmoor, about pollen analyses of peat taken from early Iron Age huts. Her contribution is noted in Fox (1954). The other is notes and drafts of an apparently unpublished article on snails and diatoms found in a deposit (exposed in 1955) from the Roman baths at Bath. In contrast, the archaeological literature contains many more references to assistance she gave in interpreting archaeological specimens:

- In 1939, an elk skeleton was found at Neasham near Darlington in a brick pit belonging to the Neasham Brick and Tile Co., County Durham. Examination of the pollen grains in the clay and peat surrounding the bones suggested, in conjunction with other evidence, an age of some 10,000 to 12,000 years (late Glacial to early post-Glacial) for the skeleton (Blackburn 1952).

---

4 The nunatak theory entails the escape of some species from the last ice age through growing in ice-free areas, thus affecting plant distribution once the ice sheets disappeared. Heslop-Harrison was a noted proponent of this theory, for example Pearman et al., 2008.
Blackburn was clearly an active, independent woman committed to her profession. She rode a motorcycle in the early days of motoring (Clark, 1983) and later drove her own car - these activities apparently being sufficiently unusual to be remarked upon by the press at the time (Yorkshire Post 1932). She went on botanical expeditions to isolated islands in the Hebrides - again, noted in the press (The Daily Mail 1937). She appears to have never married. She seems to have lived in the family home in Jesmond, Newcastle upon Tyne, at least in later years, with her sister, Dorothy Blackburn. Her father (E P Blackburn) was a prominent minister in the Methodist Church, ending his career at Jesmond after a number of ministries round the country. His daughters were active members of the congregation. (Her father was also a noted naturalist and amateur conchologist (Dunn 1983).)

Apart from her published work (a list of her papers is given in the appendix below) her archive is fragmentary in regard to her professional life. Material is present from all stages of her career, but what is perhaps surprising is the almost complete absence of lecture and class notes despite the fact that she lectured for nearly 40 years and had a reputation as a conscientious teacher (Valentine 1970).

She had a number of graduate students throughout her career (Valentine 1970). A search of the Newcastle University library catalogue for Masters’ and PhD theses revealed 21 that could have been written by her students (see appendix). Two proved to be missing but of the 19 theses examined in only two was there direct acknowledgement of her as supervisor, although her help was acknowledged in others. Fifteen theses, dating from 1928 to 1958, were on attempts to use chromosome number and morphology to elucidate taxonomic relationships.

In general, there is little material relating to these theses in her archive. An exception to this is a substantial correspondence involving one of her PhD students, F. Hussein, and other botanists around the country about Cardamine pratensis, the Cuckoo Flower. C. pratensis, a native of Britain, favours wet places and poses taxonomic difficulties being extremely variable in leaf shape. It was of interest to cytologists, no doubt because a study of its chromosomes held out the possibility of resolving its taxonomy. Its chromosome number had been studied by botanists (including Irene Manton) prior to Hussein, who went on to establish that there are two chromosome races with 2n=30 and 56. Plants with the lower number tend to be confined to the south of England (Howard 1951; Hussein 1948, 1955).

Along with the paucity of teaching material is the absence of any sort of coherent, organised set of laboratory notebooks, records of data and the like (although we need to bear in mind that for both laboratory notebooks and lecture notes “absence of evidence may not be evidence of absence”). There are some notebooks with field data but these are of variable sizes and often not fully used nor part of any obvious sequence. Laboratory data, for example pollen counts and plant lists (from field trips with, for example, the Wallis Club), are often recorded on scraps of paper which were originally used for something else: old examination scripts, used envelopes, religious timetables, laundry dockets. Perhaps she was very frugal by nature or frugality had been forced upon her by war and economic depression. Perhaps she carried her research work in her head and the scraps of paper were only intended to be aides memoire and the like. There are some notebooks with field data but these are of variable sizes and often not fully used nor part of any obvious sequence. Laboratory data, for example pollen counts and plant lists (from field trips with, for example, the Wallis Club), are often recorded on scraps of paper which were originally used for something else: old examination scripts, used envelopes, religious timetables, laundry dockets. Perhaps she was very frugal by nature or frugality had been forced upon her by war and economic depression. Perhaps she carried her research work in her head and the scraps of paper were only intended to be aides memoire rather than systematic, permanent records available for others to peruse.

The lack of a well organised, annotated system of records may not have been uncommon among academics of the period. They were after all very autonomous compared with researchers in a modern academic environment (even if collaborating with others or contributing to committees) and had no automatic expectation that their records might be questioned by others or be required to support research assessment exercises, impact ratings, patent applications etc. Data was collected to answer scientific questions and...
then usually presented after analysis in academic publications, committee reports and the like. These were what appeared in public and helped determine the authors’ reputations.

Some of Blackburn’s own lecture notes from 1910, taken when she was a student at Bedford College, University of London, are in her archive. In contrast to the fragments of her professional notes, these are neat and ordered in bound notebooks. Some practical botany notebooks contain very good drawings of plants, their quality suggesting that some unsigned water colours of flowers in her archive are also her work.

She supported the activity of naturalists outside the University through her memberships of organisations such as the Northern Naturalists’ Union, University of Durham Philosophical Society, the Natural History Society of Northumberland, Durham and Newcastle upon Tyne and the Wallis Club (a field club for naturalists). She was secretary of the Northern Naturalists’ Union in the 1940s and 1950s, and its vice-president in 1936. She was president of the Biological and Geological Section of the University of Durham Philosophical Society in 1927. The Wallis Club (1922-1939) had a series of annual dinners, and her archives contain menus of this event from 1927, 1930, 1935 and 1936 and are an insight into what was presumably considered fine dining at the time, for example Tournedos of beef (1927), Halibut au Gratin (1930), Varie Potage de Fausse (1936) and are an insight into what was presumably considered fine dining at the time, for example Tournedos of beef (1927), Halibut au Gratin (1930), Varie Potage de Fausse 1936. She was president of the Biological and Geological Section of the University of Durham Philosophical Society, the Natural History Society of Northumberland, Durham and Newcastle upon Tyne; the entry ticket attend a Social Evening on 17th October 1929 to mark the Centenary of the Natural History Society of Northumberland, Durham and Newcastle upon Tyne; the entry ticket has not been detached from the invitation so appears to be unused. She was a member of the Northern Naturalists’ Union in the 1940s and 1950s, and its vice-president in 1936. She was president of the Biological and Geological Section of the University of Durham Philosophical Society in 1927. The Wallis Club (1922-1939) had a series of annual dinners, and her archives contain menus of this event from 1927, 1930, 1935 and 1936 and are an insight into what was presumably considered fine dining at the time, for example Tournedos of beef (1927), Halibut au Gratin (1930), Varie Potage de Fausse 1936. She was president of the Biological and Geological Section of the University of Durham Philosophical Society, the Natural History Society of Northumberland, Durham and Newcastle upon Tyne; the entry ticket has not been detached from the invitation so appears to be unused. She was a member of the Armstrong College Staff Dramatic Society and played (date not given) Lady Lear’s Wife (Blackburn 1931a). She gave talks outside the university, for example at Sunderland and Hexham (Blackburn 1926; 1931b) and wrote popular articles on botanical topics (see for example Blackburn 1927c; 1932; 1940).

As noted in newspapers of the day, she took part in expeditions to study the flora of islands in the Inner and Outer Hebrides (1934-1938). These were led by her head of department, J W Heslop-Harrison (Heslop-Harrison 1938). On the surveys on the island of Rhum, Blackburn was responsible for collections of the Violaceae and she published records of bryophytes collected from the Isles Parish of Invernesshire and the island of Soay (Blackburn and Lobley 1939). Her archive contains pollen counts (frequency of observations of pollen from various species found in peat cores) collected from Rhum in 1938. The counts are recorded on unbound pieces of paper recycled from various sources (including church timetables dated 1929; some formal pollen diagrams (illustrating quantitatively the occurrence of pollen from various species and plant families at various depths of the soil cores) are among the initial pollen counts. She does not appear to have published the results of these analyses except in the case of Barra, where profiles were published as representative of those in the Outer Hebrides (Blackburn 1946).

It is worth bearing in mind that facilities on the islands were basic or non-existent. “Leisure” and “outdoor” clothing as we know them today were not available - photographs indicate that expedition members wore their usual everyday clothing - nor was camping equipment as sophisticated and light as it is today. An unattributed newspaper cutting points out that on the expedition to Rhum and other islands of the Hebrides members of the expedition would endure all manner of hardships including staying in deserted huts, camping under canvas and washing their own dishes. (On Rhum at least, the leader of the expedition stayed in the comfort of Kinloch Castle.) In an issue of The Daily Mail (1937) noting that five women were included in an expedition to Soay Island, Blackburn is quoted as saying that “We are certainly prepared to rough it. We shall carry all our provisions and equipment with us, and do our own cooking, but I hope we shall have a roof over our heads at night”. It would be intriguing to know what the professional and personal relationships among members of the expeditions were and to what extent it was taken for granted that the women took on logistical as well as botanical roles.

She took part in academic conferences of course, including some held overseas. The archive contains material relating to the British Association meeting in Toronto in 1924 (as noted above) and other Association meetings within the United Kingdom. She attended the 4th International Botanical Congress, Ithaca, New York in 1926, and meetings of the International Congress of Plant Sciences in the USA and the International Genetics Congress in Berlin (other details of these meetings not recorded). She is included in a list of participants in the commemoration of the 70th birthday of Professor Kenjiro Fujii (there is a signed photograph of the professor), a Japanese cytologist, in 1937-38, although it is not clear whether she travelled to Japan for this event.

Figure 2. Attendees at the 4th International Botanical Congress, Ithaca, New York, 1926. Blackburn is second from left, in the front row.
An interesting insight into her character - perhaps a reflection of both religious and scientific ideals - is given by the assistance she gave to at least two, possibly three, German prisoners of war to carry out pollen analyses while they were incarcerated in the north of England at Featherstone Castle, near Haltwistle (Lunn 1983). At least one of these went on to publish his work on blanket peat in the north Pennines (Precht 1953). The opportunity to do the work was arranged through the YMCA. The camp at Featherstone Castle was graded “white”, the prisoners living under a relatively liberal regime.

Her last academic publication appears to have been in 1957 (Blackburn and Morton 1957) and she retired in the same year (Valentine 1970). Her retirement was marked by an attractive bound testimonial illustrated with botanical drawings, especially of chromosomes, and containing signatures of colleagues and students. She was also presented with a card containing the signatures of 50 current and former female colleagues.

In her later life she suffered significant ill health (Valentine 1970). This affected her professionally before retirement (Thomas 1968). She was admitted to Preston Hospital (now demolished), Tynemouth, in 1961, seemingly remaining there until her death in August, 1968 (Thomas 1968).

CONCLUSION

There is a poignancy about Blackburn’s archive. One tends to think of archives as concerning people from the distant past, but she is a person now just out of reach, and who had a career under circumstances markedly different to those that someone with her abilities could expect today. A young academic today with a reputation similar to hers in the 1920s, and even more so after her work with pollen analysis and with ample evidence of her impact outside the university, might have her own research group, be successful at raising research funds and have a high rating in research assessment exercises. She might also have job offers from other universities wanting to improve their research quality ratings, and be not far off a professorship.

The Botany Department at Newcastle was a small one. In 1920 there were three academic staff including Blackburn. When J W Heslop-Harrison was appointed as head of department in 1927 there appear to have been seven academic staff. (There were fewer in the interwar years.) There were nine by her retirement in 1957. In 1947, one year after Heslop-Harrison’s retirement, 29 years after her appointment to the academic staff, and more than 20 years after the discoveries for which she first became internationally known, Blackburn was made a Reader, the most senior rank below Professor - in her day, a department would usually have only one “professor”, the head of department. It is difficult not to wonder about power structures in the department (as well as on the expeditions to the Hebrides)5.

There is no verified photograph of her in her archive. There is a photograph of her as a young woman in Lunn (1983b), later ones in the Smithsonian Institution Archives, Washington, DC, and in the Hunt Institute for Botanical Documentation, Carnegie Mellon University Pittsburgh. Photographs in her archive and in the literature (for example, reports on the Hebridean expeditions) show a bespectacled but unidentified woman who is probably her. Her photograph in the Smithsonian Institute has the caption “Blackburn was a distinguished British botanist who discovered that ‘plants as well as animals have in their cells bits of living matter known as the sex chromosomes’”. We can add her contributions to palynology and archaeology.

ACKNOWLEDGEMENTS

I would like to thank June Holmes, Archivist, and Ian Bower, Librarian, both of the Natural History Society of Northumbria, for their support and introduction to the Society archives; Dr. Angus Lunn for his comments on Kathleen Blackburn. Dr. Lunn also provided comments and on a draft of this article, as did Professor Kevin Edwards.

5 Blackburn was a contemporary of J. W. Heslop-Harrison throughout his career and indeed was the next most senior member of the Botany Department from his appointment as Head in 1927. What she thought or knew of his behaviour during the period of the allegations described in Sabbagh(1999, 2016) we may never know.
(University of Aberdeen); Keith Elliot for drawing my attention to work Blackburn had done on archaeological finds. If it were not for Mr. Elliot’s prodigious knowledge of references to her archaeological work I would not have realised its extent. I would also like to thank the staff in the Stores and Special Collection Room of the Robinson Library, Newcastle University, for their help with University Calendars and theses. Permission was obtained from The Linnean Society of London to quote from the text of the Trail Award in 1930, and from the Hunt Institute for Botanical Documentation, Carnegie Mellon University, Pittsburgh, to reproduce the photographs of Blackburn.

REFERENCES


BLACKBURN, K B (1924). The cytological aspects of the determination of sex in the dioecious forms of Lychnis. The British Journal of Experimental Biology 1: 413-430.


BLACKBURN, K B (1932). The dust of flowers or pollen. The Vasculum 18: 131-135.


BLACKBURN, K B (1940). The botanist checks up on a local tradition. The Vasculum 26: 14-17.


BLACKBURN, K B and HESLOP-HARRISON, J W (1921). The status of the British rose forms as determined by their cytological behaviour. Annals of Botany 35: 159-188.


Daily Express, 1929 - 11 December. New Wild Rose Found- Lecturer’s discovery by the wayside.


Glasgow Herald 1934 - 29 October Forestry Institute - Research on Cricket Bat Willows.


HESLOP-HARRISON, J W and BLACKBURN, K B (1946) The occurrence of a nut of Trapa natans L. in the outer hebrides, with some account of the peat bogs adjoining the loch in which the discovery was made. New Phytologist 45: 124-131.


North Mail and Newcastle Chronicle 1934 - 31 August. North Woman is Queen of Willow.


WILKINSON, J (1939) I. The cytology of the cricket bat willow. II. On the phylogeny of *Salix*. Thesis submitted for the degree of Doctor of Philosophy, Durham University.

Yorkshire Post 1933(?)- 1st September Woman scientists at Leicester, Their Work at the British Association.

A list of published works by Kathleen Blackburn and student theses on her work is available on the Natural History Society of Northumbria website www.nhsn.ncl.uk