

# **WALTER FREDERICK WHITTARD**

**BSc PhD FRS**

**(1902-1966)**



**Born Battersea, 26 October 1902**  
**Died Westbury-on-Trym, 2 March 1966**

## Walter Frederick Whittard BSc PhD FRS (1902-1966)

### 1. Introduction



Walter Frederick Whittard and Sir Cyril James Stubblefield (1901-1991) were students together at the South Western Polytechnic (Chelsea College) and later at Imperial College. They cut their teeth in geological field work in Shropshire and both gave assistance to the amateur Cambrian specialist Edgar Sterling Cobbold (1852-1936). Both moved on to established careers, Whittard as Professor of Geology at Bristol University branched out to marine geology in connection with the petroleum industry; Stubblefield to the British Geological Survey of which he became Director from 1960 to 1964. The two were joined at Chelsea (and at Imperial College) by Oliver Meredith Bone Bulman (1902-1974) who also worked in Shropshire. Bulman later became Woodwardian Professor of Geology at Cambridge. Only Whittard and Stubblefield donated fossils to the Shropshire Museums.

The current collection held at Ludlow has some seventy fossils accredited to Whittard. The following focuses his Shropshire interests.

### 2. The Whittard Family

Walter Frederick Whittard was born on the 26 October 1902 to Thomas Walter Whittard, 'a prosperous grocer in Clapham'. The family were originally stonemasons and bricklayers from St Leonard Stanley, Gloucestershire. Thomas Walter married Sarah Elizabeth Cotterill in 1892 and produced four children. The two daughters, Florence Elizabeth and Emily Louisa married in Wandsworth and were living at 43 Battersea Rise in 1939 as one family together with father Thomas Walter. Elder brother Richard Charles Thomas married in Burnley but was listed as a grocer in 1939 living in Malden, Surrey.

Walter Frederick Whittard married Caroline Margaret Sheppard (1900-1978) in Epsom in 1930 - they were close neighbours in Battersea and presumably knew each other (at school?). They had the one son, Laurence Mervyn born in 1927. Walter Frederick Whittard died at his home in Bristol on the 2<sup>nd</sup> March 1966. Caroline Whittard died in 1978.

Thomas Walter Whittard 1871-1940 b. Woolwich 09.10.1870	m.	Sarah Elizabeth Cotterill Wandsworth 1892 1868-1951 b. Stockton on Tees 30.06.1868
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Florence Elizabeth 1893-1979 b. Battersea 12.02.1893 d. Lambeth	Emily Louisa 1894-1977 b. Battersea 11.04.1894 d. Winchester	Richard Charles Thomas 1896-1954 b. Battersea 25.08.1896 d. Lancaster	Walter Frederick 1902-1966 b. Battersea 26.02.1906 d. Westbury on Trym
m. Wandsworth 1925 Samuel G. Stenning	m. Wandsworth 1932 Horace A Bysouth	m. Burnley 1922 Elizabeth Pickup	m. Epsom 1930 Caroline Margaret Sheppard 1900-1978 b. Wandsworth

Whittard became Professor of Geology at the University of Bristol after a career embracing Cambridge University and Imperial College. His early field work was concentrated on Ordovician and Silurian stratigraphy in Shropshire which led to a continuous stream of papers on Shropshire from a first paper in 1925 to the publication of an itinerary for the county published in 1958. His initial interest in the palaeozoic was followed by studies on vertebrate and invertebrate palaeontology and ended with an interest in marine geology. He was elected FRS in 1957.

Whittard's academic life is best described in the obituary written by Bulman (Mem. Fell. R. Soc. 1966 12 531-542):

### **Walter Frederick Whittard 1902-1906 Elected F.R.S. 1957**

*Walter Fredrick Whittard was born in Battersea on the 26 October 1902 and died at his home at Westbury-on-Trym near Bristol on 2 March 1966. His father, Thomas W. Whittard, was a prosperous grocer in Clapham, London, whose wife Sarah (Cotterell) bore him four children, of whom Walter Frederick was the youngest. Little is known of the early history of the family; the surname is said to be derived from Whiteheart or Wytard and to mark a connection with the Stroud region of Gloucestershire, while his mother's family were associated with Stockton-on-Tees.*

*He attended the County Secondary School at Battersea and as a boy his interests outside normal school activities were mainly zoological. He was an enthusiastic beetle collector (and in later life would still take note of the water-beetles to be found in a flooded quarry) and became a founder member of the school Natural History Society. Through a mutual friend of his elder brother Tom, however, he was introduced to T. Eastwood, of the Geological Survey, and it was Eastwood who aroused and fostered his interest in geology and induced his father to launch young Whittard on a geological career. Thus it came about that on Eastwood's advice he attended A. J. Maslen's evening classes in geology at Chelsea Polytechnic (now Chelsea College of Science and Technology) while still a schoolboy and it was here that Stubblefield and I first met him. Maslen's gifts as a teacher were widely recognized and his classes attracted a number of well-known amateurs as well as a few schoolboys and many London External students in various stages of their careers. I remember in particular at this time Whittard's enthusiasm for any geological excursions and the innumerable collecting trips that he made on his own to localities around London and the Home Counties and even as far afield as the Cotswolds.*

*From Chelsea where he subsequently spent two years as a day student, he passed on to the Imperial College of Science and Technology, entering the Geology Department under Professor W. W. Watts in 1922. Here he included in his curriculum the advanced course in zoology and like many palaeontology students he joined one of the intercollegiate vertebrae palaeontology classes which were given from time to time by D. M. S. Watson at University College, London. In 1924 he obtained first-class honours in geology and zoology in his A.R.C.S. and in geology in the External London B.Sc.; this was the last year in which students at Imperial College had to take these two examinations independently. For the next two years he was one of the small post-graduate group in the Geology Department at Imperial College comprising Howel and David Williams, C. J. Stubblefield and the writer, and began his researches on the Valentian rocks of Shropshire under the supervision of W. W. Watts. This introduction to the Lower Palaeozoic of that county was to develop into his main geological interest until some thirty years later when he commenced work on marine geology. During the years 1924-1926, however, he also joined the writer in some research on fossil amphibia under D. M. S. Watson, for which we used to spend a morning each week at University College. It would be difficult to overestimate the influence of these two great teachers, W. W. Watts and D. M. S. Watson, then at the height of their powers, and Whittard paid tribute to them in acknowledging the receipt of the Murchison Medal at the Geological Society of London last year. In 1926, having gained his London Ph.D., he went to Sidney Sussex College, Cambridge, as a research student with a Senior D.S.I.R. award for two years. Here he entered with characteristic zest into the*

*new life, joining several clubs and societies and rowing for his college with enthusiasm and no little success. He stroked the winning 'Crock Eight' in his first Michaelmas Term, and rowed in the Sidney First Boat in the Lents and the Mays. He was also in the college eight that entered for the Thames Cup at Henley in 1928 and, incidentally, beat Bristol University in the first heat. At the Sedgwick Museum, these two years brought him under the influence of G. L. Elles and W. B. R. King, and, in the Attic where he worked or through the medium of the Sedgwick Club, provided the stimulating companionship of a large number of young geologists destined for distinguished geological careers – among them two leading oil geologists, a Director of Overseas Geological Surveys, a Cambridge Reader and five Professors of geology.*

*It was also through his Cambridge contacts with R. F. Priestly, then Secretary General of the Faculties and a hospitable friend to all Cambridge research students, that Whittard was invited in the following year to join the Cambridge Expedition to East Greenland as Chief Geologist under J. M. Wordie. This experience inspired him with a lifelong interest in the Arctic and although he never returned himself, he was instrumental in recruiting members of his staff and research students to successive expeditions under Lauge Koch and others, and regularly attended the annual dinners of the Arctic Club.*

*He returned to London in 1928, was awarded a Cambridge Ph.D. and elected to an 1851 Senior Studentship in 1929; two years later he was appointed Assistant Lecturer in Geology at Imperial College, where P. G. H. Boswell had just succeeded Watts as Professor. He was promoted to a full Lectureship in 1935, with responsibility for the whole of the teaching in palaeontology following the retirement of Professor A. Morley Davies; but in 1937, at the early age of 35, he was appointed to succeed Trueman in the Channing Wills Chair of Geology at Bristol. Here he passed the remainder of his professional life and his long services to Bristol University were terminated by his untimely death at the age of sixty-three. He had been on a visit to Canada in the autumn of 1965, attending a symposium organized by the Upper Mantle Committee of the International Union of Geological Science at Ottawa, where he contributed a paper with J. B. Hersey (of Woods Hole Oceanographic Institution). Only a few days after his return to Bristol he was found to be suffering from a virus infection of the lung which proved painfully intractable and confined him to his home for the next five months; his sudden death from heart failure occurred early on 2 March 1966.*

#### *Geological Work*

*Whittard was an exceedingly active and versatile geologist, whose publications cover a wide range of interests. Moreover, he rarely relinquished his activities in any one field with the acquisition of fresh interests, so that his work does not divide readily into chronological periods. The following survey is attempted under the general headings of Lower Palaeozoic stratigraphy, palaeontology, marine geology, and miscellaneous.*

#### *Lower Palaeozoic stratigraphy*

*Whittard's first and main publications in this field were his two papers on the Valentian rocks of Shropshire. The first comprises an account of the continuous twenty-mile strip out-cropping from the south-east flank of the Wrekin to a point near Wistanstow, north of Craven Arms. He adapted Salter and Aveline's tripartite classification of the Lower Silurian (Valentian) and his map brings out strikingly the overstep and overlap along its basal unconformity. He postulated the existence of a north-easterly current along the coast of the pre-Silurian landmass and from his investigations of the conglomerates bearing pre-Cambrian (Uriconian) pebbles he was able to deduce the date of the uncovering of the Uriconian rocks of the Wrekin. It was, however, the second of these papers dealing with the Longmynd, Shelve (and Briedden) outcrops that he produced his most spectacular restorations of the relations between the Silurian sediments and the highly irregular pre-Upper Valentian landmass mapping 'fossil' sea-stacks, pebble beaches and bars, and the remnants of a deeply cut channel in the old land surface. Indeed he claimed that not only are remnants of the*

ancient pre-Silurian landscape still to be seen beneath the older Palaeozoics of South Shropshire, but that in many places modern topography corresponds closely to this ancient land surface. He had made a fascinating palaeogeographic story out of what promised perhaps little beyond routine mapping.

With the completion of stratigraphical work on the Silurian, Whittard began to turn to other aspects of Shropshire geology, mainly of course the Ordovician rock of the Shelve area. This constituted the major part of an ambitious programme covering much of south and south-west Shropshire, completing or bringing up to date the manuscript maps of Lapworth and Watts, and it was almost ready for the press at the time of his death. Unfortunately no comprehensive account actually reached the stage of publication and his notes and maps have now been passed to his former student Dr W. T. Dean at the British Museum (Natural History). A general description of the geology of South Shropshire, however, and some invaluable excursion guides and reports are to be found in the Proceedings of the Geologists' Association.

His friendship with E. S. Cobbold, the distinguished amateur so long resident at All Stretton, led to the preparation of a joint paper in 1935 'On the (Pre-Cambrian) Helmeth Grits', in which they added supporting evidence for the ascending sequence Uriconian, Helmeth Grits, Stretton Series, with the implication that the Western Longmynd is younger than the Eastern (Stretton Series). Years later, one of his research students (J. H. James) endeavoured to elucidate further the relations between both Western and Eastern Uriconian and the Longmyndian and their relative ages.

Despite the considerable volume of his palaeontological work, Whittard was above all a field geologist. His earliest researches and the friendship of Watts, Cobbold and La Touche had imbued him with an abiding love of Shropshire, and following Professor Watts's retirement, he was given Watts's manuscript maps and assumed an almost proprietorial interest in that county. It was to the solution of various problems concerning the Pre-Cambrian and Lower Palaeozoic rocks in that county that he assigned many of his best research students and it was to Shropshire that he took most of his field classes. His enjoyment of teaching probably found his fullest expression in such fieldwork and his infectious enthusiasm was nowhere seen to greater effect.

Finally, tribute may be paid at this point to his compilative work in connexion with the *Lexique Stratigraphique International*; with Scott Simpson, he was joint editor for *Fascicule 3 (Great Britain)*, of which nine volumes have now appeared, and he himself contributed largely to the volumes on the Ordovician and the Silurian.

The remaining paragraphs focus on Whittard's subsequent interests with the headings 'Palaeontology, vertebrate', 'Invertebrate', 'Marine Geology' plus a 'Miscellaneous' section which included an account of his involvement in University and external matters. There is a mention of his wider interests which included gardening where '*... Cobbold's delightful garden at All Stretton, where he was a frequent visitor, made a deep impression on him as a student...*'

#### 4. Whittard Fossils at the Ludlow Museum Resource Centre.

Some 70 Whittard fossils are housed at Ludlow, but only one specimen, *Pentamerus oblongus* (Sow.), has been included in the National History Museum Portal (as at November 2018).

GG.

06.015	Coral	<i>Lonsdaleia floriformis</i> (Fleming)	Little Wenlock
11.016	Br.	<i>Pentamerus oblongus</i> (Sow.)	The Bridges, Long Mynd
11.021	Br.	<i>Camarotoechia borealis</i> (Schlot)	Wenlock
12.032	Br.	<i>Dayia navicula</i> (Sow.)	Warlle Knoll, Craven Arms
14.065/66	Br.	<i>Pentamerus</i> sp.	-
14.068	-	Assemblage	-
15.009-13	Br.	<i>Acrothyra</i> cf <i>Sera</i> (Matthew)	Cherme's Dingle, Wrekin
15.021	Br.	<i>Discina striata</i> (Sow.)	Quarry, W of Hungerford
20.021	Gast.	<i>Platyceras cornutum</i> (Hisinger)	Spout Lane nr the Wrekin
26.045	Gast.	<i>Bucaniella trilobata</i> (Conrad)	Bog Mine Outlier
38.040-41	-	Sandstone assemblage	Hope Quarry, Minsterley
38.050	Annelid	<i>Hyolithellus?</i> <i>Cingulata</i> (Cobbold)	Cherme's Dingle, Wrekin
40.015	Gr.	<i>Bryograptus</i> cf <i>Hunnibergensis</i> (Maberg)	Cherme's Dingle, Leighton
40.016/17	Gr.	<i>Monograptus becki</i> (Barrande)	W. of Old Llanerch nr Snead
40.018-21	Gr.	<i>Monograptus becki</i> (Barrande)	Harpers Dingle, Spout Lane
40.025-27	Gr.	<i>Glyptograptus tamariscus</i> (Nich)	Harpers Dingle, Spout Lane
40.028	Gr.	<i>Climacograptus scalaris</i> (Hisinger)	E. Shineton Church
40.029-31	Gr.	<i>Climacograptus scalaris</i> (Hisinger)	Morrell's Wood Farm, Wrekin
40.032	Gr.	<i>Monograptus proteus</i> (Barrande)	Habberley Lane, Minsterley
40.033	Gr.	<i>Monograptus planus</i> (Barrande)	Highley Brook
40.034	Gr.	<i>Monograptus gemmatus</i> (Barrande)	Harper's Dingle
40.038	Gr.	<i>Monograptus runcinatus</i> (Lap.)	Betton Farm
41.012	Gr.	<i>Monograptus halli</i> (Barrande)	Wagbeach, nr Minsterley
42.021	Tr.	<i>Castatops reticulata</i> (cast)	-
42.022	Tr.	<i>Conogoryphe</i> sp.	-
42.034	Tr.	<i>Dorypyge lakei</i> (Cobbold)	Robins Wood Tump, Cwms area
42.044/5	Tr.	<i>Strenuella platycephala</i> (Cobbold)	Comley Exc. 2
47.014/15	Tr.	<i>Calymene replicata</i> (Shirley)	Bank Outlier
47.018/19	Tr.	<i>Calymene replicata</i> (Shirley)	Snead, Exc. 24
47.022/23	Tr.	<i>Encrinurus shelvensis</i> (Whittard)	Bog Mine outlier nr Shelve
47.041/42	Tr.	<i>Phacops elliptifrons</i> (Esmark)	Bog Mine nr Shelve
47.047	Tr.	<i>Chasmops macroura</i> (Sjogren)	Horderley/Strafford Road
47.051	Tr.	<i>Phacops elliptifrons</i> (Esmark)	Morrell's Wood, Little Wenlock
48.031	Tr.	<i>Strenuella pustulata?</i>	Comley Exc. 2
48.080-83	Tr.	<i>Asaphallus homfrayi</i>	Grahams Moor nr Minsterley
49.006/07	Tr.	<i>Dalmanites wenveri</i> var. <i>teniumi coronata</i>	Morrell's Wood
49.013	Tr.	<i>Dalmanites vulgaris</i> (Salter)	Onny River section
49.014	Tr.	<i>Encrinurus mullochensis</i> (Reed)	Harley Brook SE of Domas
49.038/39	Tr.	<i>Calymene replicata</i> (Shirley)	All Stretton outlier
49.045	Tr.	<i>Leonaspis marklini</i> (Angelin)	Onny River section
49.055/56	Tr.	<i>Phacops elliptifrons</i> (Esmark)	Comley Exc.2
49.064	Tr.	<i>Leonaspis erinaceus</i> var. <i>onniensis</i>	Onny River section
50.017/18	Tr.	<i>Onnia cobboldi</i> (Bancroft)	Onny River
50.036/37	Tr.	<i>Ampyx mammillatus</i> (Sars)	Whitsburn Plantation, Leigh
50.038	Tr.	<i>Ampyx mammillatus</i> var. <i>austini</i>	Brookless Coppice, Leigh
51.001	Gast.	<i>Trochonema valenticum</i> (Pitcher)	Morrell's Wood nr Leighton
52.043-46	Gast.	<i>Gyronema octavium</i> v. <i>multicarinata</i>	Morrell's Wood, nr Leighton
52.047	Gast.	<i>Lopospira woodlandi</i> (Long.)	Morrell's Wood, nr Leighton
52.057	Gast.	<i>Stenoloren aequilaterum</i> var. <i>Shelvisis</i> (Pitcher)	Bog Mine Outlier
54.050	Gast.	<i>Fusispira acuminata</i> (Pitcher)	?

The GG numbers refer to the *Object Transfer File* held at Ludlow which lists the transfer of fossils from Shrewsbury to Ludlow – the current Hanson Store location is given in this file. There also exists

a record of Whittard fossils as held in the Shrewsbury Museum in 1977. This does not tally with the above and it is possible that there was a cull of fossils at Shrewsbury in the late 1980/90s? Confirmation of the Whittard fossils actually held at Ludlow awaits the completion of current digital inputting.

Whittard also donated rock samples to the Shrewsbury Museum. His interest in pre-Cambrian rocks is noted above. Of particular interest is the recorded donation shyms: G.1977/0359 *Arenicolites* (*Pre-cambrian*) under *Batch volcanics* and *Markings of uncertain origin associated with 'Arenicolites' below Batch volcanics*. *Arenicolites* is the name given to John William Salter's putative finding of Pre-Cambrian fossil traces on Long Mynd in 1856/57 – a find long lost to history although it was noted by Darwin. Cobbold was aware of the find, Whittard must be added to this list but there seems to have been no follow-up.

*Silurian Brachiopod*  
*Pentamerus oblongus* (Sow.)

The Bridges, Long Mynd  
Priref 19723  
shyms g. 1977.0142



Dr J. A. Gosling  
November 2018

### 3. Selective Bibliography – Shropshire related

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