Professor Arthur Henry Reginald Buller, BSc, PhD, DSC, FRSC, FRS, a Moseley born British-Canadian mycologist and renowned academic

On 15th October 2025, a 'Fungi Walk' took place at Moseley Bog led by Lucas Large, a Natural Science curator. The name of Professor Arthur Buller, a renowned mycologist, was mentioned.

Arthur was born on 19 August 1874 in Moseley, the son of Alban Gardner Buller and his wife Mary Jane (née Huggins). He was the fifth of seven children. His father was born in Hanwell, Oxfordshire, where the family had been engaged in agricultural pursuits for over 300 years. Alban became a solicitor in 1865 and commenced practice in Banbury before relocating to Park House, Alcester Road, Moseley, Birmingham five years later. Although Park House has since been demolished, it originally stood opposite the entrance to Park Hill and next door to where Fivelands is today. Alban quickly established himself as one of the leading advocates in the city and eventually joined Mr Thomas Cross in partnership at 71 Temple Row, Birmingham. As a Liberal Unionist, he represented Kings Heath Ward on the Worcestershire County Council for sixteen years before retiring when the district was included in the Greater Birmingham area in 1911. He was also a JP, a founder member of the Moseley Institute and founder of two Wesleyan non-conformist churches in Moseley and Kings Heath.

As a young boy Arthur was a weekly boarder at a preparatory school near his home. He suffered in his early years from asthma whenever he was taken to the seaside or the country. His later education was at Queen's College Taunton founded by Methodists dissatisfied with the educational opportunities for non-conformists. It provided a 'regular and liberal course of education' and was closely associated with the University of London.

After matriculating from college in June 1892, Arthur returned home to the family's new home at Kingsfield House, Alcester Road, Kings Heath. His interest in botany and mycology (the study of fungi) stemmed from following slug trails on the gravelled front of his father's house. Kingsfield House was bought in 1925 for the building of St Dunstan Roman Catholic church

Mason College

Following his interests, Arthur continued his further education at Mason College, now part of Birmingham University. He studied under Professor Hillhouse, graduating in 1896 with a BSc in Botany. His talents were quickly recognized and he was awarded the Hislop Gold Medal and in August 1899, an 'Exhibition of 1851' scholarship worth £150 that enabled him to study and research at home or abroad.

He used his time well, travelling to Leipzig in October 1897 where he studied biological research under Professor Pfeffer at Leipzig University, a great plant physiologist. While in Leipzig, Arthur wrote a dissertation entitled 'Die Wirkung von Bakterien auf tote Zellen' (The Effect of Bacteria on Dead Cells), and also carried out researches on some aspects of the physiology of fern spermatozoa, which were subsequently published in the Annals of Botany for which he was awarded a PhD. In the Spring of 1900 Arthur worked at the Forstbotanisches Institut in Munich, under Robert Hartig, a forest pathologist, and investigated the destruction of sycamore wood caused by *Polyporus squamosus*. During the spring of 1900 and again in 1901, Arthur occupied the British Association table at the International Marine Biological Station in Naples where he carried out researches on sea-urchin spermatozoa under Dr Dohrn.

Returning home in 1901, Arthur was awarded a lectureship at Birmingham University and in 1903 he was awarded a DSc. During this period at Birmingham, he began the researches on fungi for which he later became famous. One of his early investigations concerned the rotting of wood paving blocks used in the Birmingham streets. He showed that this was due to the fungus *Lentinus lepideus* and he wrote an interesting paper describing the reactions of its fruit-bodies to external stimuli. He also investigated the biology of *Polyporu*s, one of the large bracket-fungi which destroy broad-leaved trees, especially elm.

In 1904, Arthur took up a new and better paid post at Winnipeg, Canada, where he founded a new department of Botany. At first, he lectured on geology as well as botany, but after a few years a separate professor of geology was appointed. At Winnipeg he found his life's work and fortunately after a time asthma no longer afflicted him: he built up a most successful botanical department and poured out a constant stream of investigations of the highest quality. During the summer he regularly returned to England to continue his work either at Birmingham University or at Kew.

Arthur had decidedly mixed feelings when the First World War broke out in 1914. Nonetheless, he supported the war effort by attending daily drills and lectures as a Lieutenant in the Officers Training Corps in 1917. He was a strong supporter of conscription. Several of his university colleagues joined the Canadian Expeditionary Force voluntarily but Buller did not, maintaining that he could do 'more good at home'. This proved to be the case when he contributed to the development of rust-resistant wheat varieties after a catastrophic prairies harvest in 1916, enhancing the production of wheat during WW1 shortages. He predicted that Canada would eventually raise a wheat crop larger than the United States.

Arthur's innovative techniques for observing spore infection processes led to the writing and illustration of a 7-volume series *Researches on Fungi* published in 6 volumes from 1909 to 1934 with the 7th volume published posthumously in 1950. He went on to write *Essays on Wheat* (1919) and *Practical Botany* (1929).

Arthur listed his hobbies as billiards, writing limericks and crossing the Atlantic. One of his best-known limericks is shown below.

Upon the slide, with best of light
And lenses "5" or "7",
I see a sight as wondrous as
The Milky Way in heaven.

A diatom in armour clad,
Now glides into the scene;
It seems to be in miniature
A perfect submarine.

A Paramecium hastens by
With countless cilia beating.
Its body is transparent; I
Can see what it's been eating!

To Spirogyra's restful threads
My vision now is guided;
Each segment is with spiral bands
Of chlorophyll provided.

How wondrous is a mighty sun,
That lights a boundless chasm!
More wondrous still I deem a speck
Of living protoplasm.

He was very well connected with many universities across Europe accounting for thirty-six Atlantic crossings. His academic achievements were many: he was the President of the British Mycological Society in 1914; a Fellow of the Royal Society of Canada (FRSC) in 1909, and became its President in 1927. In 1929, he was awarded the Royal Society of Canada's Flavelle Medal and in 1937, he was elected a Fellow of the Royal Society (FRS). He was a life member of the Mycological Society of America.

He was awarded four honorary degrees from the University of Saskatchewan, University of Calcutta, University of Manitoba, and University of Pennsylvania. The Buller Building at the University of Manitoba, built in 1932, is named in his honour.

Arthur continued in his post at Winnipeg until 1936, when he retired as emeritus Professor to devote his time to the work for which he has become famous – the study of higher fungi.

Early in 1939 he returned for the last time to Canada where he remained until his death. Being a bachelor, he lived in the McLaren Hotel virtually throughout his life completely untroubled by domestic duties He died on 3rd July 1944, aged 69, in Winnipeg.

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Information on the life of Professor Arthur Buller was based on information from the Royal Society obituary notices, Volume 5, Issue 14, 1 November 1945, local Birmingham newspapers, the Graham Reeves archive held by the Moseley Society, the Manitoba Historical Society Archives and records from Ancestry.