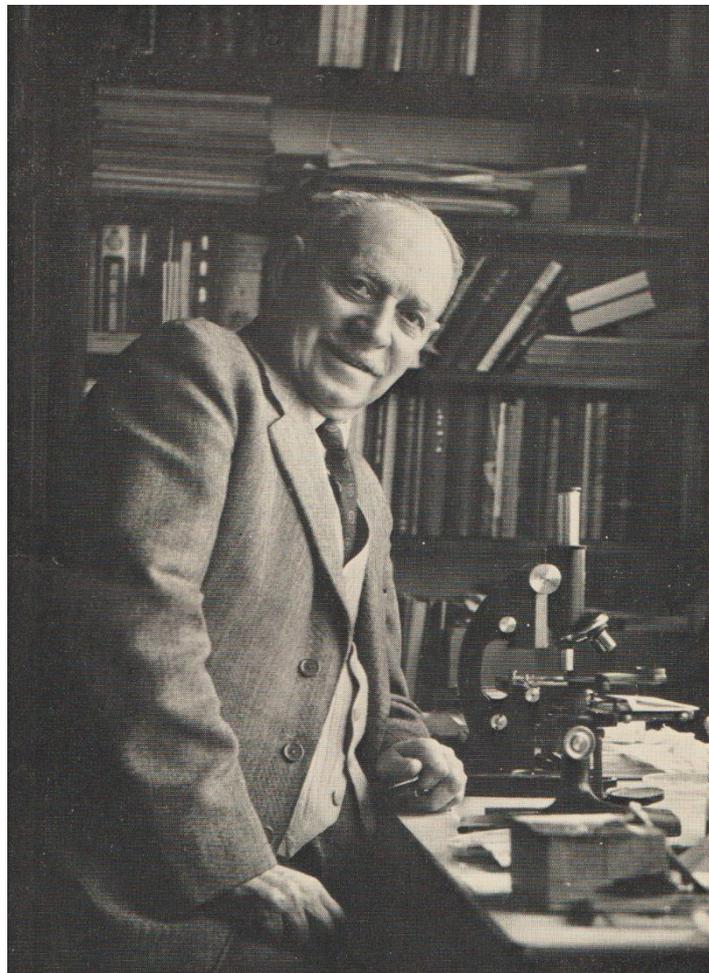


F. A. SOWTER, F.L.S. - AN APPRECIATION

by
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F. A. SOWTER, F.L.S., 1899-1972
Photograph taken January 1971

F. A. SOWTER, F.L.S. - AN APPRECIATION

With the death on 16th November 1972 of F. A. Sowter, Leicester lost its most distinguished living local botanist. Tributes to his work in the field of cryptogamic botany have appeared in the appropriate national journals, and the purpose of this note is to chronicle his life-time's association with the Literary and Philosophical Society, together with his work on the local flora and its conservation.

Frederick Archibald Sowter was born in Leicester on 30th August 1899. He was a pupil at the Wyggeston School from 1909 to 1914 during the headmastership of the Rev. Canon "Jimmy" Went, of whom he still spoke with profound respect sixty years later. His family lived at the time in Nelson Street, where their neighbours were the Taylors, who played an important part in encouraging his natural history interests. The father, S. O. Taylor, was an entomologist by hobby and the son, Stephen A. Taylor, a fellow pupil at the Wyggeston, was his boyhood companion in rambles in search of plants and insects throughout the Leicestershire countryside and a life-long friend until his death in 1953

It was also at this time that he came under the influence of A. R. Horwood, Sub-Curator at Leicester Museum from 1901 to 1922. Horwood gathered about him a group of young botanists, known locally as "Horwood's Boys", whom he encouraged in the study, not then regarded as a serious academic discipline, of the local flora. Many of them went on to distinguished careers in the natural sciences either as amateurs or professionals and Sowter was no exception.

It was while at school, about 1911-1912, that he was first taken to meetings of the Literary and Philosophical Society by S. O. Taylor, who was a member of Section E for Zoology and Microscopy. They must have impressed him, since in a letter to the Hon. Secretary some six months before he died he vividly recalled the titles and contents of a number of the lectures. He was away from Leicester on active service with the Argyll and Sutherland Highlanders during the latter part of the war years and afterwards served for a year or so in the army of occupation in Germany. Returning to Leicester in the early twenties, he set about training himself for a career in textile chemistry and eventually joined Courtaulds Ltd., with which firm he remained until his premature retirement, due to ill-health, in 1958.

He appears to have taken up membership of the Society again in the late twenties, his election as an Associate of Section D, Botany, on the proposal of W. E. Mayes, being recorded in a minute of 19th January 1927, and his name appearing in the list of members of the parent body in 1928. A paper on "Leicestershire Mosses" was read by him to Sections D and E on 18th December 1929, the account in the *Transactions* recording, somewhat condescendingly, that "The lecturer has added several new varieties to our Leicestershire list, and is therefore qualified to speak on this subject". He must have proved an enthusiastic member of the Section since late in 1930, upon the appointment of the Hon. Secretary, G. J. V. Bemrose, to a post at Stoke-on-Trent Museum, he was elected to succeed him in this office and that of Curator of the Society's Herbarium. The first minutes in his characteristic hand are for a meeting held on 19th November of that year. He served in this capacity and that of joint Hon. Secretary to Sections D and E, Botany and Biology, on various occasions between 1930 and 1939 and represented the Sections on Council throughout that period. He was one of a handful of pre-war members who met on 24th February 1944 to restart the Section after a break in activities due to the war, and a month later he was elected joint Hon. Secretary, a post which he held, together with that of Representative on Council, until 1951. On the death of S. A. Taylor late in 1953

he succeeded him as Chairman, an office he held until 1963, when, in recognition of over thirty years' service to the Section, he was made its first President, an office he held until his death. He became a member of Council in 1952 and served until his death. Early in the sixties he was asked to accept nomination as President of the Society and it was with great regret that, due to ill-health, he had to decline this honour.

In the late twenties and early thirties he was actively engaged in work both on the flowering plants and bryophytes of Leicestershire and Rutland. The *Transactions* for 1930-31 contain a number of flowering plant records made by him and we know that he was then serving as Hon. Secretary of the Committee which had been set up in 1912 to prepare a new Flora. None of the records of the Flora Committee seem to have survived but correspondence from A. R. Horwood found amongst his papers gives some idea of the considerable amount of work involved, particularly after the request made in 1931 that the new Flora should be ready for the British Association meeting in Leicester two years later. Between 6th January 1932 and 16th August 1933, he received thirty-two letters from Horwood amounting in all to 117 pages. The greater part of this correspondence consisted of requests for detailed information on local botany and botanists, copies of large numbers of herbarium labels, loans of books and "survey work and special collecting" in areas for which little information was available to Horwood, who had been working in London for most of the preceding decade. His help in the preparation of the Flora is recorded on p. ccxcii in the following terms, "Mr. F. A. Sowter, Sec. Flora Committee, for unflinching assistance in supplying notes, looking up specimens or information at Leicester, and much other valuable assistance, both before the war, and recently, since he became secretary," and in his letters Horwood, who was at times somewhat stinting in his praise of the work of others, doubted whether this expression of gratitude was in any way adequate. Certainly Sowter must have spent a great deal of his spare time during 1932 and 1933 not only on this research but in arrangements for the British Association meeting. Although he was never again quite so active in this field of botany he retained his interest in flowering plants and when a third Flora Committee was set up late in 1967 to revise the 1933 publication and resurvey the flora of Leicestershire, he gladly accepted their invitation to become an advisor to the Committee, in which capacity he made an active contribution to their deliberations.

Although he made a major contribution to the 1933 Flora, it was in the field of cryptogamic botany that F. A. Sowter was really to break new ground. A sentence in one of Horwood's letters, that of 10th August 1933, is worth quoting in this context, "We will talk later on over the cryptogam vol. in which you must play a good part." It was Horwood's intention to do for the cryptogams of the two counties what he had accomplished for the flowering plants, but it was in fact Sowter who was to realise that ambition. The first group to attract his interest were the bryophytes and his first collections of material appear to have been made during 1927. The following year was spent acquainting himself with the commoner species, such as *Hypnum cupressiforme* in all its different forms, and he then collected extensively in Leicestershire and Rutland until mid-1941 when his account of the bryophytes of the area was published. The convention, common at the time and which he adopted, of only listing the botanical districts of the two counties from which he had recorded the commoner species conceals the amount of work involved in this publication. He took the opportunity of the discovery four years later of a small collection made in 1830 by the Rev. Andrew Bloxam to add further records made in the period 1941-44.

With the approaching publication of the results of over a decade's work on bryophytes, he turned his attention to two other groups of cryptogams, the myxomycetes and lichens. Myxomycetes occupied some of his time in the early and middle forties, most of his

collecting being done between 1940 and 1946 and the account of his discoveries was published in the *Transactions* in 1958. Lichens were a task of quite a different magnitude, partly because of the much greater number of species involved and partly because of the difficulties of identification. His first collections of lichens appear to have been made in 1940 and he collected extensively in Leicestershire and Rutland during the war years, 1941-44 and less actively up to 1950, when publication of the second part of "The Cryptogamic Flora of Leicestershire and Rutland" that on lichens, took place. In the foreword to this paper he acknowledges his debt of gratitude to Dr. Walter Watson who helped him to get to grips with the group and with whom he remained in regular correspondence until the latter's death in 1960. Much of his time was spent in attempting to confirm the earlier records of Bloxam, Horwood and others, particularly those for the Charnwood Forest area, and in this quest he was surprisingly successful considering the cumulative effects of air pollution on the lichen flora of the county to which attention was first drawn by Horwood in 1907.

His interest in bryophytes and lichens never flagged but during the fifties and sixties a combination of factors, notably an increasingly severe respiratory condition, prevented him from doing much field work and did not allow him much opportunity to add to his published work on the two counties. However, after a crisis in his health in late 1966 and with devoted nursing by his wife Marion, he was able in the remaining six years of his life to do much more, working on material collected by himself, his wife, D. L. Hawksworth and the author of this note, amongst others. As a result he published in 1969 notes bringing up to date his 1941 and 1945 papers on bryophytes and that of 1950 on lichens. Further additions followed in 1970 in a joint paper with D. L. Hawksworth, and another in 1972. He had already gathered together some notes for a further paper in 1973 when he died and it is hoped to publish these in due course. He was active at his microscope until only a week before his death and on Friday 10th November, when the author last saw him, he was most excited by the confirmation by A. C. Crundwell of his identification of a moss *Ephemerum recurvifolium*, new to the county, found by his wife earlier that month in their garden in Stoughton Lane.

Conservation of the wild life of the two counties he knew so well was a cause always close to his heart and he felt keenly the losses to their flora occasioned by the felling of woodland and the drastic changes in agricultural practices adopted during the second world war and subsequent decades, as may be seen from his article "Our diminishing flora", published in the *Transactions* in 1960. It must have been a source of some comfort to him that he was able to make a very positive contribution to the work of the Nature Reserves Investigation Sub-Committee for Leicestershire and Rutland which was set up in 1943 and reported in February 1944. The form of the final text must have owed a great deal to his unique knowledge of the two counties and this knowledge was again called upon when the first schedule of Sites of Special Scientific Interest for the area was prepared in 1952-53 by Eric Duffey of the Nature Conservancy. This schedule was based substantially on the 1944 recommendations. He was as well aware as others, however, of the scant protection that inclusion in this schedule gives to sites of interest, the destruction in 1955 of almost the last remaining area of wet moorland in Leicestershire, at High Sharpley, being a pointed example. For this reason he was a keen advocate of local initiative in conservation matters and was a founder member of the Leicestershire Trust for Nature Conservation set up in 1956 and a member of its Council until his death. Although somewhat incapacitated by illness, he was actively involved in Trust affairs in the late fifties, liaising with the Regional Office of the Nature Conservancy, providing evidence for the enquiry on the route of the M1 across the Charnwood Forest and helping to lay the ground for the magnificent bequest by Miss C. E. Clarke to the Trust of over five hundred

acres of her estate at Charnwood Lodge as a nature reserve. Later, he took more of a back seat, but although rarely able to get to meetings of Council he was always available for advice and information.

He had, of course, been closely associated with the Museum since his schooldays. He was co-opted in July 1952 to the Museums and Libraries Committee, on which he served for over twenty years, and was honoured in 1971 by appointment as one of the first two Honorary Associates of the Museum. He contributed a considerable amount of material to the Museum collections during his lifetime and at his death bequeathed to the institution his cryptogam collection together with all his notebooks and records. The collection, which amounts to over six thousand specimens, is worldwide in scope although with a strong bias towards local and British material and the bequest, together with material already existing in the collection, makes it one of the most important of its kind in the country. His library, which must have been one of the most comprehensive on cryptogamic botany ever assembled by a private individual, with a number of rare early works, was divided, according to his wishes, between the two national societies with whom he had been closely associated, the British Bryological Society and the British Lichen Society. Material duplicating their holdings was given to Leicester Museum, where it forms a useful nucleus for future work on his collections, particularly the bryophytes. The collections are available for study in the Biology Department of the Museum and cataloguing, which was well advanced at the time of writing, should be completed by late 1973.

What may be said in conclusion of a man who, despite the drawbacks of lack of opportunity in his youth to pursue his interests professionally and ill-health in later life, managed to accomplish so much? The encouragement he received in his schooldays from A. R. Horwood he passed on in generous measure to several generations of naturalists, of whom the writer considers himself fortunate to have been one. He was an amateur in the very best traditions of this country, yet he pursued his interests with a dedication and discipline equalled by few professionals. He will be remembered not only for his great contribution to knowledge of the flora of Leicestershire, Rutland and further afield, but also for the generous hospitality provided by Marion and himself to all comers to their home at Stoughton. His counsel will long be missed by those who had the fortune to know him.

LIST OF PUBLICATIONS RELATING TO LEICESTERSHIRE AND RUTLAND

- 1941 The cryptogamic flora of Leicestershire and Rutland. Bryophytes. Leicester: F. A. Sowter.
- 1945 Notes on and additions to the bryophytes of Leicestershire and Rutland. *NWest. Nat.* 20,49-51
- 1950 The cryptogamic flora of Leicestershire and Rutland. Lichens. Leicester: Leicester Literary and Philosophical Society.
- 1958 The Mycetozoa of Leicestershire and Rutland. *Trans. Leicester lit. phil. Soc.* 52,20-27.
- 1960 Our diminishing flora. *Trans. Leicester lit. phil. Soc.* 54,20-27
- 1969a Leicestershire and Rutland bryophytes 1945-1969. *Trans. Leicester lit. phil. Soc.* 63,40-49
- 1969b Leicestershire and Rutland lichens, 1950-1969. *Trans. Leicester lit. phil. Soc.* 63,50-61 (with D. L. Hawksworth).
- 1970 Leicestershire and Rutland cryptogamic notes, 1. *Trans. Leicester lit. phil. Soc.* 64,89-100 (with D. L. Hawksworth).
- 1972a *Octodiceras fontanum* (La Phyl) Lindb. epiphytic on sponges. *J. Bryol.* 7,87

OUR DIMINISHING FLORA

by

F. A. SOWTER

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The word "extinct" has a sinister ring in the ears of a naturalist. To the local naturalist, be he botanist or zoologist, it so often means that some plant or animal which he has known all his life in some particular station has gone forever from that scene. Frequently the local naturalist makes an annual pilgrimage to see some interesting or rare plant in its known habitat in the county in order to record its status and, if it is rare, to endeavour to protect it. Then suddenly he finds the habitat destroyed, usually by man's activities, and the plant has gone. That he should regard this loss to the local flora or fauna with any concern is frequently regarded by some as a sentimental attitude which must not stand in the way of man's progress. When discussing the extinction of a plant one is frequently asked why it is not replanted elsewhere in a similar habitat in the county, but botanists generally frown on this unnatural procedure, and where it has been tried it so often does not work.

The author was recently asked to comment on the status of a moss, *Grimmia subsquarrosa* Wils., in Leicestershire. This particular moss was recorded in 1913 by the Rev. H. P. Reader on rocks in Barrow Hill Quarry, Potter's Marston (Sowter, 1941). This quarry has been greatly enlarged since the end of the last war and there is little doubt that the rocks upon which this moss grew have now been quarried away and the moss must therefore be regarded as extinct in the county. Without local knowledge information such as this, which is required for a new "Census Catalogue of British Mosses", would not have been so easily available. With this thought in mind and the encouragement of other local botanists, the author of these notes decided that the time had now arrived when all extinctions and other important data on the status of plants which are diminishing in their stations in Leicestershire and Rutland (Watsonian Vice-county 55) should be noted for the benefit of future workers on the flora of the county. It is unlikely that another Flora of the county will ever be published for various reasons and so supplementary lists and notes will amplify the present *Flora* by Horwood and Gainsborough which was published in 1933.

In addition to extinctions, there are many plants which are rapidly diminishing in quantity in the county. The late Mr. A. R. Horwood founded a Plant Protection Society, the outcome of which was a local bye-law to prevent the wholesale uprooting and picking of our wild flowers and ferns. As far as the writer knows, no prosecution has ever been made.

Perhaps this is due to the outcry that a certain paper made when it described Mr. Horwood as "a moss-faced botanist who wished to debar children from picking a few wild violets for their mother's grave". Nevertheless it is a reflection on our lack of interest in our local plants when one thinks that in the 1900's the Primrose (*Primula vulgaris* Huds.) was a common plant of our hedgebanks and woodlands and Horwood in his Flora remarks that as this plant is generally distributed throughout the county, details of locality are therefore omitted. Today it is difficult to find the plant growing wild in Leicestershire. The Bluebell (*Endymion non-scriptus* (L.) Garcke) too is rapidly diminishing due to the destruction of woodlands and excessive picking. Sheet Hedges Wood near Groby which has always been known to Leicester people as "Bluebell Wood", and to which many of us went to see the bluebell in its glory in the spring, is nearly quarried away. For many years in the spring the roads into Leicester from the Charnwood Forest have been strewn with picked and discarded bluebells. Much of the destruction of our wild flowers is due to the ease with which people are able to move about by modern transport and thoughtlessly destroy our heritage of wild flowers which, if left in their natural surroundings, all can enjoy.

The main causes of our diminishing flora are however, land drainage, deforestation, the extension of our city, county towns and villages by the construction of large housing estates and industrial premises. Other important factors are quarrying, gravel and sand pits, open-cast mining for coal and ironstone working. During wartime aerodrome and camp construction take their toll of our flora and these sites are often left derelict for long periods after the war so that a "weed" flora comes in. Road widening also destroys the flora of the verges as does the spraying with toxic chemicals which not only destroys the vegetation but also kills the insect fauna without discrimination. The problem of atmospheric pollution which has a most destructive effect on the cryptogamic vegetation has already been discussed by me elsewhere (Sowter, 1950).

In addition to all these hazards, we now have the threat of a trunk road through the county. This is the proposed London to Yorkshire motorway and it seems extraordinary that the planners of this 200-mile long highway have chosen to cut through the Charnwood Forest area which gives so much pleasure to local people, especially those who have to live their lives in the city and which contains so much of interest to the naturalist. In Leicestershire, according to the published map, the road will pass close to Narborough Bog, the flora of which has already been much affected by drainage so it will be interesting to see if the proximity of the trunk road will further affect this area. In its planned progress through the county it enters the Charnwood Forest via Martinshaw Wood which was clear felled only a few years ago and replanted by the Forestry Commission; then on to that very unspoilt portion of the Forest, Copt Oak and Charley, to finally pass through Piper Wood. This intrusion together with quarrying, deforestation and other activities will surely reduce the amenity and scientific value of the area which has been described as "a fragment of Wales taken up and set down bodily in the heart of England" (Rogers, 1941).

In Rutland quarrying has taken toll of many of the limestone plants which are not to be found in Leicestershire. There, too, much ploughing up of grassland during the wars caused a depletion of the typical limestone grassland flora.

It must also be put on record here that the following areas have been placed under trusteeship for the enjoyment of the public: Bradgate Park, Swithland Wood, Beacon Hill, Outwoods and Burbage Wood. All these localities have an interesting flora and fauna. Unfortunately the public has not always respected its own property and damage has been done by the uprooting of wild flowers and ferns for removal to their gardens where they seldom survive, instead of leaving them for all to enjoy in their natural habitat. The author

has even seen the Great Hairy Wood Rush (*Luzula sylvatica* (Huds.) Gaudin) being dug up in Swithland Wood and attempted discussion was immediately met with truculence. It can only be hoped that education in these matters will be effective before it is too late to save the remains of our heritage. Leicestershire being such a highly industrialised county can ill afford to lose that which is left of its natural beauty. In the list that follows extinctions are marked with an asterisk and for convenience of reference the Botanical districts used in previous Floras (1888 and 1933) of the two counties of Leicestershire and Rutland have been retained.

I wish to thank our President, Mr. Trevor Walden, for his interest and advice; also Mr. E. K. Horwood and Mr. Maurice Hanson, both of whom have done much field work in the county, for their help with information and suggestions.