



**Obituary**  
**Thomas Gibson, D.Sc**  
**1897-1973**

In the recent death of Tom Gibson, microbiology has lost a renowned devotee and another link with the foundation of the Society for Applied Bacteriology has been severed.

Such was the man that all who knew him remembered a quiet, unassuming manner which belied a great strength of character and talent. His influence on colleagues and students alike was profound, creating a deep feeling for their work which transcended the materialism of library and laboratory and gave learning a purpose and a stimulus. The separation of academic study and practical application was meaningless to him, and research, teaching and advisory work were closely interwoven in his laboratory. His leadership was essentially one of example, providing standards of self-discipline, accuracy and thought which his associates strove hard, but often vainly, to emulate.

Tom Gibson was born near Edinburgh of a farming family and educated at Edinburgh Academy. After serving in the Tank Corps during the First World War he studied and graduated at Edinburgh University. He joined the teaching staff of the Bacteriology Department of the East of Scotland College of Agriculture in 1923 where he was content to remain until he retired as Head of the Department in 1963. Thereafter, until the day before his death he remained active in the laboratory.

Shortly after his initial appointment he made a number of visits to the United States—an unusual event for a young scientist of that time. There he met in adventurous circumstances many of the prominent bacteriologists of that time such as Fred, Waksman and Conn. Meetings such as these initiated international relationships which he fostered for the rest of his life to the obvious benefit of his staff and students.

Tom Gibson's numerous contributions to the scientific literature over nearly 50 years bear ample testimony to the breadth and depth of his knowledge and understanding of the bacteria and their biological activities. During the thirties he published a series of scholarly papers on the urea-elastic micro-organisms of soils. Based on several years of careful, painstaking work, this, his first major investigation, remains a model ecological study some 40 years later. His studies ranged from a detailed investigation of the effect of environmental factors on urea decomposition in different soil types to an examination of the physiology and taxonomy of the principal micro-organisms concerned in the process. Much of the work was concerned with the more active urea-decomposing *Bacillus pasteurii* group but one of the more fascinating aspects was his investigation of an unusual coccus *Sarcina ureae*. Up to that time Beijerinck's 1901 isolation of a motile, endospore-forming coccus had not been repeated despite numerous attempts by different investigators. Moreover, doubts were expressed about the validity of the early observations of endospore formation in a coccus. However, Gibson devised a simple method for its isolation and showed that *S. ureae* was numerous in fertile soils. With typical thoroughness he determined the

special growth conditions required for endospore formation and established beyond doubt that the organism was a motile, packet- and tetrad-forming coccus which produced heat-resistant endospores. For his work on the ureaclastic bacteria he was awarded the degree of D.Sc. of Edinburgh University in 1935.

These early studies on aerobic spore-forming bacteria led to a life-long interest in the genus *Bacillus*. He subsequently published a number of papers on the taxonomy of *Bacillus* culminating in a revision of the genus, with Dr Ruth E. Gordon, for the forthcoming 8th edition of *Bergey's Manual*. He had just finished correcting the proofs of this contribution before his death.

Over the years he became an expert on many bacterial groups and in many aspects of agricultural bacteriology. Diverse research projects were undertaken with associates and students and he communicated his enthusiasm to all who worked with him. During and immediately after the Second World War came the extensive studies which contributed greatly to our knowledge of the microflora of raw and pasteurized milk. This was followed by a detailed investigation of the microbiology of silage and the fermentation process. Concurrently there were many research topics undertaken with students including those concerned with soil and soil processes, milk spoilage, plant pathogens, egg spoilage and poultry deep litter. In all these diverse investigations his deep knowledge and understanding of microbial ecology and bacterial taxonomy had a profound influence.

But his contribution to microbiology was much greater than is indicated by his published work. His advice on various problems in microbiology was frequently sought and freely given. Many members of this Society and others benefited from his unsurpassed knowledge of the bacteria. Frequently, his help was of a more practical nature. For example, when Dr S. T. Cowan became Curator of the National Collection of Type Cultures in 1947 Tom Gibson examined every *Bacillus* strain in the Collection and ensured its correct identity. He was gifted with an excellent memory and had an outstanding knowledge of the literature. Those of us who had the privilege to work with him will remember that when asked a question in the laboratory on some topic or other he would either give an immediate reply or produce in a few minutes a number of relevant references written in his minuscule handwriting on a tiny scrap of paper.

Over the years his extensive studies on a wide range of bacterial groups earned him an international reputation as a bacterial taxonomist. He became a member of the International Committee of Bacterial Nomenclature (ICBN) in 1953 and in 1962 was made a member of the Judicial Commission. In 1970 he was made a life-member of the ICBN. He also served on the ICBN Sub-committee on the Taxonomy of Staphylococci and Micrococci. In addition to his contribution on the genus *Bacillus* he prepared revisions of the genera *Caryophanon*, *Sporosarcina* and *Oscillospira* for the forthcoming 8th edition of *Bergey's Manual*.

Tom Gibson was one of the founder members of the Society and gave it outstanding support from its early years as the Society of Agricultural Bacteriologists to recent times. He served as an Editor, Assistant Editor, Committee Member and as President (1963–65) contributing greatly to its development and status. In recognition of these services he was elected an Honorary Member in 1966.

Throughout his life Tom Gibson shunned the publicity and recognition due to him. In his family and professional life he was a happy and contented man and to both he gave his best. His material contributions to microbiology were considerable and the intangible influences of his fertile mind and powerful personality will be proudly borne by his associates and, undoubtedly, passed on to those who succeed them. During his long and fruitful career he was devotedly supported by his wife, Daisie, whom he married in 1926. To her and to their daughter, Aileen, we offer our deepest sympathy.

R. M. KEDDIE

A. M. PATON