

Obituary

Professor Gordon Elliott ‘Tony’ Fogg, CBE, FRS, died on 30 January 2005 at the age of 85. A distinguished algologist and freshwater biologist, Fogg (Fig. 1) also made a substantial contribution to marine biology and to polar science.

Fogg was born on 26 April 1919. His father was a Methodist minister in London, and Fogg was educated at Dulwich College and then Queen Mary College, where he studied under the world-famous algologist F.E. Fritsch. He was evacuated to St John’s College, Cambridge, at the start of the Second World War, and it was there that he met another respected algologist, E.G. Pringsheim. Fritsch and Pringsheim set Fogg off on his lifetime study of algae — which began with his assignment as a conscientious objector to a wartime survey of the seaweed resources of the British Isles. Fogg ultimately took his PhD at St John’s, and later in the war he spent some time at Pest Control Ltd at Harston, Cambridge, working on anti-malarial drugs, and it was there that he met and married Beryl Llechid Jones, whose father was also a minister.

The war over, Fogg was appointed to the staff of University College, London, where he began to study the fixation of nitrogen by blue-green algae. He swiftly became an expert on algal cultures, and his work on the release of algal photosynthetic products into fresh waters took him also into ecology. He became a world authority on algal physiology, and his first book, *The metabolism of algae*, appeared in 1953. He also had a flair for popular scientific writing and produced many delicate watercolour paintings of algae.

At University College, Fogg’s head of department was the famous ecologist W.H. Pearsall. They shared wide-ranging interests in plant physiology (and especially nitrogen metabolism), freshwater biology, and plant ecology. Pearsall was stimulating, but at times unpredictable, and Fogg told many anecdotes of their association — including how he got round Pearsall’s tendency to ask him to take over one of his lectures at a few hours’ notice. The Fogg solution was to devise a multi-purpose lecture on ‘Water as a physiological fluid,’ which could fit into almost any course the great man was likely to deliver!

Pearsall and Fritsch were both pillars of the Freshwater Biological Association (FBA), then the paramount centre in Britain for limnology and aquatic biology. Fogg became a visiting research worker at the FBA’s Windermere Laboratory and subsequently chairman of its Scientific Advisory Committee. He was the author of a booklet written in 1979 for the fiftieth anniversary of the founding of FBA and represented the Royal Society on the FBA Council right up to the time of his death.



Fig. 1. Professor G.E. ‘Tony’ Fogg.

Fogg was appointed professor of botany at Westfield College, London, in 1960. Here he built up an outstanding research school from which numerous students moved to senior posts in many parts of the world. A broad-ranging book on *The growth of plants* appeared in 1963, followed in 1965 by *Algal cultures and phytoplankton ecology*. He was elected Fellow of the Royal Society in 1965. And it was from Westfield that he paid his first visit to the Antarctic.

This was a period when the British Antarctic Survey was expanding its biological research, and had developed the practice of inviting senior academics to go south for a summer to undertake research and develop projects later carried out by research students under their supervision. Fogg’s visit to Signy Island in January–February 1966 led to papers on snow algae and on the physiology of Antarctic freshwater algae, and to many years’ involvement in polar science, including as chairman of the BAS Scientific Advisory Committee.

In 1971 Fogg moved from London to his wife’s native land and became professor and head of the Department of Marine Biology in the University College of North Wales at Bangor. From Bangor, he visited the Antarctic

again in 1974 and 1979. These visits and the work of his research students were the basis for papers on primary production and on plant plankton. His widening interest in polar science and polar history led, in 1992, to a major volume on *The history of Antarctic science*. Although there had been many books on the history of Antarctic exploration, this was the first substantial account of the development and achievements of science in the region. Fogg characterised it as 'big science,' because it needed to be supported on a national scale through voyages and programmes that were 'the space ventures of their time.' He emphasised its holistic and international character, and gave a hint of personal unease that it might become fettered by international bureaucracy — something that Fogg, although a skilled operator in the world of science politics, found irritating.

Fogg's other major polar publication was *The biology of polar habitats*, which appeared in 1998, dedicated to his wife, Beryl, who had died in the previous year. This book displays a breadth of ecological and physiological understanding worthy of W.H. Pearsall, and remains one of the best comparative accounts of life in the Arctic and Antarctic. Other publications of his later years included an analysis of the contributions of the Royal Society to Antarctic science and exploration.

Fogg combined a keen intellect with a mild manner, a warm personality, and a great deal of charm and humour. These gifts not only endeared him to many friends and colleagues but made him a valued member of boards and committees. He was a trustee of the British Museum (Natural History) from 1976 to 1985 and of the Royal Botanic Gardens, Kew, between 1983 and 1989. He was a member of the Natural Environment Research Council in 1981–82 and served on the Royal Commission on Environmental Pollution between 1979 and 1985. He held office in a number of scientific societies and was president of the British Phycological Society in 1961–62, of the International Phycological Society in 1964, and of the Institute of Biology in 1976–77. His services to science were recognised by his appointment as a CBE in 1983. His contributions to Antarctic science are commemorated in the naming of the Fogg Highland (72°45'S, 60°50'W), an ice-covered upland on the Black Coast of Palmer Land.

Fogg remained active and a valued participant in meetings and discussions almost to the end of his 85 years. He will be remembered for his scientific gifts, his warmth, his deft wit, his clarity in writings and lectures, and above all for his wisdom. His son Timothy (who has also worked in Antarctica) and daughter Helen survive him.

Martin Holdgate