Professor John David Gage 1939-2005

PERSONAL TRIBUTES

Professor John Gage died on the 18th July 2005 after a short illness. To those of us in the deep-sea scientific community, we lost not only an esteemed scientific colleague but a mentor and personal friend.

TOWARDS THE DEEP SEA: JOHN'S EARLY YEARS

John Gage, born 14 November 1939, was a native of Salisbury, Wiltshire, and his early interest in marine biology stemmed from diving along the south coast of England. He went to the University of Southampton to study Zoology in 1958 and, on graduating, elected to pursue a PhD on the integrative behaviour and life history in some marine commensal associations. After his PhD he undertook a post-doc at Woods Hole (1964-1966) under the great Howard Sanders, who stimulated John's interest in deep-sea biology. A second post-doc took him to the MBA in Plymouth.

37 YEARS AT DUNSTAFFNAGE

In 1967 he was appointed to the Scottish Marine Biological Association, then in the process of moving from Millport to its new premises at Dunstaffnage. Thus began John's long association with the SMBA (now SAMS), which was to continue throughout his working life. During this long and industrious career he was awarded a DSc from the University of Southampton (1984), became a Fellow of the Institute of Biology (1984), gained individual merit promotion in NERC (1986), and held Honorary Chairs at the Universities of Southampton (appointed 1997) and Aberdeen (appointed 2000).

John always wanted to find out more and to see how the results of his science were being used. Unlike many, he didn't give the impression that the science belonged to him, he was keen for others to take his ideas forward, to use them. He was a gentleman scientist of the old school.

He was always interested in what I was doing, yet my work seemed to have little or no connections with his. But he was more than happy to spend time explaining how the different parts contributed to the whole environment. I think that is the image of John I will remember: he saw the bigger picture. There are not many Johns in the world, in fact he was unique.

> Dr Dave Long British Geological Survey

John's early years at Dunstaffnage were spent looking at the ecology and population biology of invertebrates in sea lochs. However, by the early 1970s his interest had been drawn to deep-sea biology in the Rockall Trough. In a brave and ultimately successful decision he undertook temporal studies in the deep sea to determine if there was any annual variation. To do this John established the Permanent Station at 2900m depth in the southern Rockall Trough. This was later supplemented by the megabenthos-rich Station M at 2200m at the base of the Hebridean Slope. By this time I was working regularly with John. In conjunction with the physics group at Dunstaffnage a series of regular cruises visited these stations until the mid 1980s, and more sporadically thereafter. The population analyses of invertebrates from these cruises demonstrated unequivocally for the first time that there were seasonal (annual) variations in growth in the deep sea.

Then John became involved in the modelling of these populations, an interest he maintained until his retirement in November 2004.

John also painted on a broader canvas: He maintained his interest in the NE Atlantic by involvement in a series of EU-funded programmes. But he developed an additional interest in oxygen minimum environments, and conducted cruises to the Oman Margin and later the Pakistan Margin.

These are all scientific facts evidenced by extensive publications culminating in the first text on deep-sea biology for over 20 years.

EQUIPPING THE NEXT GENERATION

A less well-known attribute of John's was his ability to bring young people into deep-sea biology. I was possibly one of the first to benefit from his scientific generosity in that he invited me to sea, shared samples and showed me how to run cruises. Subsequently, many of my own graduate students, as well as other



 John's work in the Rockall Trough proved for the first time that seasonal growth patterns exist in deep-sea animals.

I was the last student to complete their PhD with John (2000) before going on to do a post-doc with him. Working with John always remained challenging, both at an intellectual and a personal level.

He taught me many things: to be a determined person, to have a desire to succeed, and to be incredibly diplomatic and compromise when the need arises. All these have stood me in good stead.

John and I may have had our disagreements, but he was my mentor, the person I wanted to tell about the exciting things we had discovered in the Antarctic (pages 8-9), and about more recent work that was undertaken on seamounts and banks in the NE Atlantic. Both of these areas John never got to explore, however, I feel that he would have been really pleased to know that we are finally undertaking work that he would have loved to have done.

Dr Bhavani Narayanaswamy (John's academic daughter) SAMS

students, benefited from participating on John's cruises. There are a number of young (and not so young) deep-sea biologists, whose first experience of deep-sea biology was with John.

Lastly, John had an international outlook. He worked with some of the best in the world, and was the first among equals.

On the 18th July, I lost a scientific colleague, a close personal friend and one of the great guides to my career. Although we worked 500 miles apart, I always felt he was in the lab next door, ready for discussion or advice should I need them. He will be sorely missed by all his scientific colleagues and friends.

Professor Paul Tyler National Oceanography Centre, Southampton