

FOREWORD



DR DAVID J. DREWRY: A NEW APPOINTMENT

After serving as Director of the Scott Polar Research Institute since 1 January 1984, Dr David Drewry moves across Cambridge to become Director of the British Antarctic Survey in May 1987. Under his leadership for the past three years, the Institute staff has been strengthened with a 'new-blood' post in remote sensing, by refilling posts left vacant after recent retirements, and with additional research posts financed by outside funds. Both staff and students have been very active with field research ranging from Svalbard to the Weddell Sea, and in preparations for use of the European satellite ERS-1. More candidates than ever before have taken the MPhil course on Polar Studies, additional space has been built on to the library, and cataloguing has been computerized.

David Drewry read geography and geology at Queen Mary College, London, including studies of glaciology and sedimentology on their East Greenland expedition, before commencing his PhD in the Institute in 1969. At this time the techniques and physics of radio echo sounding of polar ice sheets were becoming well established, and we needed someone to interpret the large quantities of data coming from airborne sounding of the Antarctic ice sheet. David Drewry went to Antarctica during his first term. Within ten months he produced a paper on sub-glacial morphology between the Trans-Antarctic Mountains and the South Pole that was highly commended at the SCAR symposium on Antarctic geology and geophysics in Oslo in 1970. By 1979 he had taken part in five field seasons of airborne radio echo sounding over Antarctica, being field leader on the last two. He received his PhD in 1973, the Sir Henry Strakosh Fellowship in 1974, the Cuthbert Peek Award of the Royal Geographical Society in 1979, and the Polar Medal in 1986. *The Glaciological and Geophysical Map Folio of Antarctica*, published by the Institute in 1983, which he organized and edited, provides the best data presentation currently available on such basic ice sheet parameters as thickness, volume and bedrock relief. His book *Glacial Geological Processes* (Edward Arnold, 1986) is already in use on university courses.

After receiving his PhD in 1973, David held research posts in the Institute until his appointment to the University staff as a Senior Assistant in Research in 1978. He was promoted to Assistant Director of Research in 1983, before becoming Director in 1984. His perception and understanding have been much appreciated; he moves on with congratulations and goodwill from the staff, students and Friends of the Institute to his new responsibilities. His appointment adds one more important post to those held by graduates and former staff of the Institute in government, academic and commercial spheres around the polar world.

Gordon Robin, Terence Armstrong

DR RICHARD M. LAWS CBE FRS: RETIREMENT

In April 1987 Dick Laws retired as Director of British Antarctic Survey. His active involvement in Antarctic research goes back 40 years, and during that period he has been one of the most influential figures in determining the direction of British scientific policy in the Antarctic.

Dick Laws was born in Northumberland and was educated at Dame Allan's School. During the war years the school moved to the Lake District where Dick established a rapport with his surroundings that remained with him all his life. In 1944 he won an open scholarship to St Catharine's College, Cambridge, where initially he intended to study medicine. However, his life's interest in zoology soon established itself and he went on to take a first in zoology in 1947.

Dick applied for and obtained a post as biologist with the then newly-established Falkland Islands Dependencies Survey. He travelled down to Signy Island (Base H) in the old *John Biscoe* to take over as base leader from Gordon Robin. For the next three years Laws developed what proved to be seminal work—an exhaustive study of the biology of the southern elephant seal, which at the time was the most comprehensive study ever to have been made on any seal, and perhaps of any large mammal in the wild. In 1951 he re-engaged with FIDS and went to South Georgia, where he continued his work on elephant seals, this time directing it towards the more applied objective of conserving the population by putting the South Georgia sealing industry on a more rational footing. It says much for Dick's work in those days that the management plan he developed, when applied to the industry, had exactly the consequences he had predicted, and made a remarkable success out of a venture that was heading towards disaster. Near to the end

of his career at BAS Dick got a good deal of satisfaction when a detailed census of the South Georgia elephant seals, conducted from a chartered yacht, came up with a total nearly identical to the one he had himself obtained from a sealing vessel in 1952. A key achievement of this stage of his research was the discovery that the age of a seal (and of many, if not most, other mammals) could be accurately determined from a study of growth layers in its teeth. This has proved a very powerful technique and has revolutionized studies of the population dynamics of mammals.

Laws returned to Cambridge where he wrote up his elephant seal work, obtaining his PhD in 1953. He was appointed to the staff of the National Institute of Oceanography and in the same year returned to the Antarctic, this time as biologist and whaling inspector on the factory ship *Balaena*. His work on whales extended over seven years and was concerned mainly with the population ecology and reproduction of the fin whale, and led to two substantial monographs in the *Discovery Reports*. Here again, the accurate determination of age was crucial to his work. In a paper published in 1962 he was the first to draw attention to data suggesting that the growth rates of fin whales had increased and their average age at maturity had decreased in response to a reduction in their population density because of whaling. This remains a controversial issue in whale population studies.

In 1961 Laws was offered the post of Director of the newly-created Nuffield Unit of Tropical Animal Ecology in Uganda, which was associated with the Universities of Cambridge and Makerere and with the Uganda National Parks. For the next eight years he worked in East Africa, moving in 1967 to become the first Director of the Tsavo Research Project in Kenya, funded by the Ford Foundation. Although he directed a wide range of research topics his own work stayed with large mammals—the biology and management of hippopotamus and elephant populations. He was senior author of an influential book on elephant population ecology and management, published in 1975. Many of the lessons that Dick Laws had to teach were unpopular in some quarters and the debate over whether or not wild animal populations should be managed still continues, though it is now generally accepted that for elephant at least, culling is essential. Dick had some difficult times in East Africa and events there since then have saddened him. There is small satisfaction in being proved right if one has been prophesying doom.

In 1969 Dick Laws was appointed head of the Life Sciences Division of British Antarctic Survey and at once set about creating an organized structure from what was at that time a rather amorphous group. The structural organization and the research leadership he provided set the pattern for the Division until it was divided into the two present groups, Marine and Terrestrial Life Sciences, in 1986.

Laws was the natural choice as Director, BAS, when Sir Vivian Fuchs retired in 1973. As Director he had the opportunity to develop a new and effective form of management within the Survey which resulted in its striking development from that time. Despite declining resources prior to 1982 the Survey showed a massive increase in productivity, as measured by research publications produced, under Laws' directorship. The establishment of the headquarters and laboratories for BAS at Cambridge in 1976 did much to create a unified whole out of what had been a fragmented group, but Laws' leadership was a potential catalyst.

The events of 1982 were a critical strain on the system. It seemed that after the resolution of the conflict with Argentina the future of the Survey, boosted by a massive increase in its yearly grant from NERC, was assured. In fact, changes in the method of funding created even more serious difficulties which are only now in the process of being resolved. These years were some of the most difficult for Dick Laws and it was only by superhuman efforts, battling with those who ought to have been his allies, that BAS was able to continue as the centre of excellence that had developed under his direction.

Dick Laws played a major role in international Antarctic affairs. Within SCAR he was a member of the Biology Working Group from 1969 and became its chairman/secretary in 1980, standing down in 1986; he was and still is convener of the Group of Specialists on Seals and a member of the BIOMASS executive; he became the UK Permanent Delegate to SCAR in 1984. He was influential as an advisor to the Foreign and Commonwealth Office at the time of drafting the Convention for the Conservation of Antarctic Seals and the Convention for the Conservation of Antarctic Marine Living Resources. He served on the Working Party on Marine Mammals set up by the Advisory Committee on Marine Resources Research (ACMRR) of the Food and Agriculture Organization of the United Nations. This in 1976 organized the important Scientific Consultation on the Conservation of Marine Mammals and their Environment for which Laws acted as chairman. Four impressive volumes, *Mammals of the seas* (1978–82), contain the proceedings of the Consultation which gave rise to many original lines of thought that have influenced attitudes to marine mammals to this day.

In 1984 the two volumes of *Antarctic ecology* appeared. This major work was and is the definitive state-of-the-art text on its subject. Besides editing both volumes, Laws wrote a lengthy chapter on the ecology of Antarctic seals which gave him the opportunity to review his earlier work and offer new interpretations. Besides his duties with BAS, Dick Laws served also as director of the NERC Sea Mammal Research Unit. This had been formed from the old Whale Research Unit of *Discovery* days, with which he had previously been associated, and the Seals Research division of the Institute for Marine Environmental Research. He was thus able to bring his particular skills to bear on a group which conveniently was located in the BAS building.

Dick Laws is known to his friends and colleagues in this country and abroad as a scientist who has consistently maintained the highest standards and as an administrator who was never prepared to compromise his principles. His qualities were widely recognized. He received his first award, the Bruce Memorial Medal for Antarctic work, in 1954 and the Scientific Medal of the Zoological Society of London in 1965 for 'distinguished contributions to Zoology, particularly on the ecology and physiology of large mammals'. In 1976 (rather belatedly, in the opinion of some of his colleagues) he was awarded the Polar Medal. He was elected a Fellow of the Institute of Biology in 1973, and a Fellow of the Royal Society in 1980. 1982 saw him elected to an honorary fellowship of his Cambridge college and in 1983 he was appointed CBE.

Dick will be remembered very warmly as Director. He was always approachable and even at periods of greatest stress always found time for a word with even the most junior of his staff. He could, of course, be firm and did not shirk the responsibility which his position at the top entailed. He was a most agreeable companion in the field and was then seen at his best—diligent, painstaking and quietly humorous. He will not be idle in retirement; duties as Master of St Edmund's College, Cambridge and Secretary of the Zoological Society of London will take a good deal of his time. He will certainly return to the research that he has had to neglect in the last few years. Many of his friends hope that he will be able to spend more time on his paintings. His talents in this field, mainly in watercolour, were recognized when he was admitted as a member of the Society of Wildlife Artists, but like the research, he has had little time for this activity lately.

We wish him well and hope that not only will his influence continue to be felt in polar circles but that his presence will be represented there also.

Nigel Bonner