HELGOLÄNDER MEERESUNTERSUCHUNGEN
Helgoländer Meeresunters. 49, 465–466 (1995)

History of the Marine Biological Association of the United Kingdom

A. J. Southward

Marine Biological Association; Citadel Hill, Plymouth, PL1 2PB, U.K.

The Association was founded by a group of scientists and men of affairs who were interested in fisheries and the study of marine life. They met at the International Fisheries Exhibition in London in 1883, when it was proposed to form a society to build a laboratory on the coast. The most active member of this group was E. Ray Lankester who became honorary secretary of the Association when it was constituted on 31 March 1884, with T. H. Huxley as the first President. It was decided to build a laboratory at Plymouth, where there was a great variety of marine life. Help and advice came from local naturalists and businessmen, as well as The Fishmonger's Company in London and other private sources. The Government provided a grant of building costs and an annual grant towards running expenses in return for practical researches into fisheries. The laboratory was opened in June 1888, and, from the start, the investigations were multidisciplinary, ranging from fisheries to physics. Ray Lankester became President in 1890, upon the retirement of T. H. Huxley, and E. J. Allen was appointed director of the laboratory in 1895. For 40 years Lankester and Allen guided the affairs of the Association, establishing it among the foremost institutions of its kind in Europe. Early problems in supply of research material were overcome by Allen, who acquired reliable steamboats; first the 60 ft "Busy Bee" in 1896, then the 83 ft "Oithona" in 1901. From 1902, the Association undertook the government's share of the International Investigations into North Sea fisheries, and established a laboratory at Lowestoft. An additional 116 ft research vessel, named "Huxley", was acquired for this work. In 1910, "Huxley" was sold and the Lowestoft laboratory was closed, when the Ministry of Agriculture and Fisheries took over the fisheries work from the MBA. A fishery laboratory was opened again at Lowestoft by the Ministry in 1919.

The MBA vessel "Oithona" was replaced by an 88 ft steam trawler, "Salpa" in 1921, and an inshore motor-boat, "Gammarus" was built. These two boats served the Association well until 1939. Between 1946 and 1988 the Association operated a number of research vessels, most notably an inshore trawler of 60 ft length for day work ("Sula", then "Squilla") and a larger vessel for longer trips in the Channel and Western approaches ("Sabella" then "Sarsia" then "Frederick Russell"). Extensive interdisciplinary investigations were undertaken on production in the sea, and studies made on distribution, physiology and biochemistry of deep-sea animals. The purpose-built research vessel "Sarsia" served the Association from 1953 to 1981 and over this period worked widely in north-east Atlantic waters, from the west of Ireland to the Skagerrak,

and from Sogneford in Norway to the north coast of Spain. Stimulated by the work of A. P. Hodgkin, a large school of neurophysiology developed in the laboratory in 1946–80 – making use of the giant axons of squid, supplied by the three research vessels and an inshore motor-boat then operating from Plymouth. The larger research vessel was withdrawn from Plymouth in 1982 and deep-water work since then has been dependent upon occasional cruises with vessels operated by the Natural Environment Research Council from Barry in South Wales. The inshore motor boat was sold in 1987/8, but the Plymouth Marine Laboratory still operates two research vessels, the 60 ft trawler "Squilla" and the 42 ft fast launch "Sepia", both of which provide a common facility and bring in fresh material for researches in the laboratory.

Until 1920, over half the income of the Association came from members' subscriptions, rental of laboratory space to visiting workers and the sale of publications, nets and specimens. Extensions to the building were opened on the north side of the site in 1920 and again in 1931, to accommodate the increasing amount of work on marine chemistry and physiology, to allow expansion of the library, and to offer more space to the growing number of visiting researchers. Gradually the government share of the expenses of the laboratory was increased, in view of the value to fisheries of much of the environmental work carried out by the Association. However, up to 1939 the resident staff was small and more than half the researches were made by visitors. Many of the visitors came to Plymouth during the vacations, but others stayed longer, being helped from MBA funds such as the Ray Lankester Investigatorship, and from government funds for students.

F. S. Russell became director in 1945, and with increased funding from the government he was able to refurbish the war-damaged buildings and expand the staff. Further large extensions to the east and to the west of the existing buildings were carried out in 1960/1 and 1973/5, to provide more research space and facilities. In 1965, administration of the government grant to the MBA was transferred to the new Natural Environment Research Council (NERC), who gradually increased the financial assistance but also increased control of the researches undertaken. In 1988, most of the environmental work of the MBA, together with contract work, was amalgamated with that of the Institute for Marine Environmental Research – a laboratory established at Plymouth by NERC in 1971. The two groups now constitute the Plymouth Marine Laboratory (PML), carrying out researches controlled by the Marine Science Division of NERC. The other research work at Plymouth – notably neurophysiology, developmental biology and facilities for visiting workers – is provided by the now independent MBA (Director Dr M. Whitfield), which shares the building at Citadel Hill with part of PML. Basic researches are carried out by a group of resident MBA research fellows, augmented by fellows supported by private foundations and also a number of post-graduate students and post-doctoral research workers funded by the U.K. Research Councils.

The Association produces the *Journal of the Marine Biological Association* and other occasional publications. The origin of the MBA is described in more detail by Southward, A. J. & Roberts, E. K. (1987). One hundred years of marine research at Plymouth. J. mar. biol. Ass. U.K. *67*: 465–506; and the early development is discussed by Southward, A. J. The Marine Biological Assosciation and fishery research, 1884–1924: scientific and political conflicts that changed the course of marine research in the United Kingdom. (Buckland Foundation, in press.)