

FOREWORD

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This special issue of *JMBA* papers on the gelatinous plankton is dedicated to Sir Frederick Russell, Director of the Plymouth Laboratory of the Marine Biological Association from 1945 to 1965 and pioneer in the study of gelatinous plankton.

Sir Frederick Russell

Despite being twice interrupted in his work by war service, very few workers on the plankton have accomplished as much as Sir Frederick Russell (Freddie to all his friends). He was an acute observer, and fortunately when he joined the laboratory, the then Director, E.J. Allen suggested to him that he should take up research on the vertical distribution of fish eggs. So began an intensive sampling programme, in which not only fish eggs and larvae, but also macroplankton of various kinds were collected, naturally including both siphonophores, medusae, and chaetognaths, both the latter becoming main interests in the 1930s.

He made many contributions to the biology of the macroplankton in the Western Approaches; he continued the regular long term series of plankton samples; he collaborated with others on the staff on plankton productivity and its control; he showed the value of macroplankton as indicators; used chaetognath species as warm and cold water mass indicators, and established what came to be known as the 'Russell' Cycle. He wrote with C.M. Yonge FRS the very successful popular book *The Seas: an introduction to the study of life in the sea* (1928) a 4th revised edition appeared in 1958. He founded *Advances in Marine Biology* in 1963 and he published the classic definitive work on European medusae *The medusae of the British Isles* volumes 1 and 2 (1953, 1970). His last book, *The eggs and planktonic stages of British marine fishes* (1976) was followed by many contributions to the *Fiches d'identification de zooplancton*, (which he jointly edited with Poul Jespersen) ending with his final *Fiche* on Narcomedusae in 1981. Not least of all his many accomplishments, and in some ways the most influential for UK science, he directed the Plymouth Laboratory from the end of the war until 1965.

He had a relatively small staff, whom he looked on in some ways as a family and their success in science and the visitors who were attracted to the laboratory look on this time as a golden age, mainly due to his wise and kindly leadership and forethought. He used to walk around the laboratory welcoming visitors and occasionally dropping in to chat with one of the staff, and although it was never quite clear how he did it, he invariably knew what was going on. Time-keeping was deliberately elastic, discussions at coffee-times often

lasted until lunch, and afternoons off for golf, sailing or gardening were not rare.

Nevertheless, or perhaps as a result, under his leadership, the laboratory established its (continuing) reputation as exceptionally successful scientifically, yet one of the least expensive in terms of papers published for the funding received. He organized the first ocean going research ship (RV 'Sarsia') the Association had owned and obtained sufficient funds that the laboratory was for its size relatively well equipped. Cruises on RV 'Sarsia' undertook chemical and physical as well as biological studies, and she spent much time in the Bay of Biscay and English Channel approaches.

Freddie was delighted when 'Sarsia' collected a huge unknown purple scyphozoan medusa (*Stygiomedusa fabulosa*) in one of its deep mid-water trawls, a second specimen found went to the Natural History Museum.

His scientific career was interrupted by two world wars. In the first, after gaining at Oundle a Cambridge scholarship in biology, he volunteered and was accepted by the Royal Naval Air Service in 1916. He flew as an observer in DH4 reconnaissance aeroplanes, being awarded the DFC, DSC and Croix de Guerre avec palme for his skill and bravery in photographing enemy lines. In the second world war, he joined RAF intelligence, ending the war as a Wing-Commander.

He began in science as an assistant naturalist at the Plymouth Laboratory in 1924, when he was 27. He remained at Plymouth for the rest of his scientific life, finally finishing the second volume of his magisterial account of *The medusae of the British Isles* in 1970, after he had retired as Director of the laboratory in 1965. In 1980 he left Plymouth for a nursing home at Goring on Thames where he died in 1984.

In person, Freddie Russell was quiet and friendly with very shrewd piercing blue eyes often twinkling with amusement. His advice was much valued and he was an excellent judge of people. As Director he had a splendid sense of fun, and much enjoyed playing occasional practical jokes on his staff. He was universally respected.

From personal knowledge and the obituary memoir by E.J. Denton and A.J. Southward in Biographical Memoirs of Fellows of the Royal Society, 32, 463–493.