

Dr Shirley Jeffrey (1930-2014)

In 1988, Dr Shirley Jeffrey was awarded the inaugural AMSA Silver Jubilee Award for Excellence in Marine Research in Australia. Dr Jeffrey presented an address, *Marine micro-algae: from ocean pastures to mariculture*, to the annual AMSA conference in Sydney on 14th December 1988.

Dr Shirley Jeffrey was interviewed in 2000 for the Australian Academy of Science's '100 Years of Australian Science' project funded by the National Council of the Centenary of Federation. Click [here](#) for a full transcript of this interview.

Below is a brief summary of Dr Jeffrey's career from the above link.

Shirley Jeffrey was born in Townsville, Queensland in 1930. She received a BSc from the University of Sydney in 1952 and an MSc in 1954.

For her PhD, she went to King's College Hospital Medical School in London and worked on the effect of aspirin on carbohydrate metabolism. She returned to Sydney in 1951 to work with Dr George Humphrey at CSIRO Division of Fisheries and Oceanography. This was the beginning of her lifelong career in marine science.

Her work involved finding a chemical method for measuring microscopic algae in the ocean. Her approach was to separate the pigments in microalgae and to purify the major marine chlorophylls.

From 1962 to 1964, Jeffrey was at the University of California, Berkeley, as a research fellow funded by the Kaiser Foundation. Here she learned new photosynthetic techniques and became aware of new methods that allowed the discovery of two new chlorophyll c pigments. In 1965 she was invited to join the maiden voyage of the Alpha Helix, the research vessel of the Scripps Institution of Oceanography at the University of California, which was coming to Australia to study the ecology of the Great Barrier Reef. On this trip she investigated the pigments in the microalgae that are symbiotic in tropical reef animals.

Jeffrey was a principal research scientist at CSIRO's marine biochemistry unit between 1971 and 1977. From 1977 to 1981 she was a senior principal research scientist at CSIRO Division of Fisheries and Oceanography and then acting chief of CSIRO Division of Fisheries Research (1981-84). In 1991 she became a chief research scientist.

From 1978 to 1995 Jeffrey was in charge of developing the CSIRO Collection of Living Microalgae (also known as the Algal Culture Collection), a valuable resource for both research and industry, and helped design the facilities that now house the collection. In 1996 UNESCO published *Phytoplankton Pigments in Oceanography* which Jeffrey co-edited.

Jeffrey received the inaugural Jubilee Award of the Australian Marine Science Association in 1988. She became a Fellow of the Australian Academy of Science in 1991. In 2000 she became a Foreign Associate of the American National Academy of Sciences, and received the Gilbert Morgan Smith Medal for research in algae. Jeffrey became a Member of the Order of Australia in 1993.

Jeffrey passed away in 2014, aged 84.

