

Professor June Olley

Professor June Olley came to Australia in 1968 after 18 years at Torry Research Station, Aberdeen, Scotland, where she had already established an excellent reputation for her research as a lipid biochemist and for the application of her basic studies in fish technology. The following concentrates on her work at the CSIRO Tasmanian Food Research Unit and at the University of Tasmania and thus addresses her unique contribution to Australian Marine Science. Early fish technology studies in Hobart concentrated on the processing of abalone (which formed the basis for the modern-day processed abalone industry) and on fish drying in association with Dr Peter Doe at the University of Tasmania. Information gained in the latter area was used to good effect in an ACIAR-funded project on fish drying in Indonesia, in which Dr Olley had a major oversight role. In keeping with her disposition to promote knowledge of her discipline, she became a valued mentor of several Indonesian students involved with the project.



Flexibility and adaptability are keynote traits of good scientists who can apply scientific principles in disparate areas. These traits are well illustrated in Professor Olley's timely response to the urgent problems of heavy metal pollution in the Derwent estuary (early 1970s). While others gained publicity from these events, Professor Olley studiously applied scientific method to gather the quantitative baseline data against which to develop remediation strategies and to chart progress.

My professional association with Professor Olley began on arrival at the University of Tasmania in 1974 when I was first introduced to the concept of Predictive Microbiology which, at that time, most would have categorised as crystal ball gazing. Like many good concepts, it is simple and elegant, but clearly to achieve the stated aim of predicting the shelf life and safety of fish and other foods would require persistent and long-term scientific endeavour.

Her first publications in the area (with Professor David Ratkowsky) were in 1973 and these have continued to appear regularly over a 30-year timeframe, including the first book on predictive modelling in 1993. Professor Olley was the pioneer of predictive microbiology, being involved in developing the concept and recognising the need for a multidisciplinary approach to make progress. In 2005, predictive modelling of microbial behaviour in foods is recognised as a new paradigm in food safety management and has become an important tool to judge the safety and quality of fish and other foods in international trade.

For those efforts, Professor Olley has received several honours, including AM, an Honorary Doctor of Science from the University of Tasmania and was elected as a Foundation Fellow of the Australian Academy of Technological Science and Engineering. At 81 years of age, Professor Olley continues to maintain a "blistering" pace, contributing to areas as diverse as a thermodynamically-based model to describe the effect of temperature on microbial growth, to mercury levels in seafood. This is an area that has resurfaced as a "hot topic" and, in typical fashion, Professor Olley's recall of work carried out more than 20 years ago may well have prevented reinventing the wheel.

Earlier I indicated that Professor Olley had proved a very effective mentor for Indonesian students involved in the ACIAR Fish Drying Project and it is



in the area of stimulating and guiding postgraduate students that she has had an enormous influence at the University of Tasmania. Since her retirement in 1989, I estimate that she would have had direct involvement in the work of >50 honours and research higher degree students in the Microbiology Research Group within the School of Agricultural Science at the University of Tasmania. This involvement covers the entire research gamut from development of a hypothesis, experimental design, conduct of experiments, analysis of results and, in particular, of the thesis and subsequent publications. The skills learnt by the students from Professor Olley provide them with a solid basis on which to develop their careers.

Professor June Olley will give a talk "Fish technology for a rapidly changing marine environment: Some lessons from the past" at the AMSA2006 conference

Professor Tom McMeekin