

Dr K. Radway Allen (1911-2008)

The 1995 AMSA Silver Jubilee Award winner, Dr K. Radway Allen, was introduced to the conference by Dr Derek Staples. Derek spoke of Kay as an important mentor who introduced him to the concept of production and productivity in fisheries. He reminded delegates of Kay's remarkable contribution to marine science through his synthesis of the factors affecting fish growth, publication of over 140 scientific papers, directorship of three fisheries research laboratories in Australia, Canada and New Zealand, involvement in the International Whaling Committee (among others), and his leadership as a scholar and a gentleman.



Kay thanked Derek for his kind introduction, and quipped that the award may have been made by virtue of his scientific longevity - it is 60 years since he first published a paper, and he has the distinction of having two papers published in the same journal 50 years apart!

Kay prefaced his acceptance speech by reminding delegates of Rosa's passing, and her close involvement with his work over the 56 years they were together. She edited everything he wrote, worked as his field assistant for many years and supported him in all the adventures they shared.



His interest in science developed early and during his teen years he carried out ecological surveys of insects in a stream zone near his home. This was soon followed by study at the University of Cambridge where he specialised in zoology and entomology. At that time statistics was still new to ecology and he only learned about means and standard deviations during his third year, and first encountered linear regression some three years after the conclusion of his degree.

Following university Kay's freshwater interests contributed to his involvement in work for the Freshwater Biological Association (UK) at Lake Windemere. During work on the ecology of mayflies in streams, he gained an interest in their fish predators and his interests began to shift from insects to fish - particularly perch and trout.

His work on the trapping of small perch (*Perca fluviatilis* L.) in unbaited cages was of eventual use to the war effort, because during the war the unfortunate fish were canned as a food supplement and marketed under the name "Percines" This involvement led to a major project on Lake Windemere perch, and through this to a study on growth of Atlantic Salmon. His interests were now firmly focused on the links between prey abundance, fish diet and growth.

In 1938 Kay went to New Zealand to look quantitatively at fish populations. He was told to "do what he liked as long as he spent no money". Despite this restriction he carried out surveys of bottom fauna and fish distribution and growth. He found different rates of growth in different parts of the stream. However, the war intervened and the results of this work were not published until 1951. Further post-war work included examining the effects of top-dressing fertilisers and DDT on stream communities. His were some of the first results to indicate the serious impacts of these chemicals and practices on stream communities.

In 1961 the International Whaling Commission, deciding to convene an independent committee to assess whale stocks, wrote to his department requesting his involvement on the committee. Together with Douglas Chapman (University of Washington), Sidney Holt (of Beverton & Holt fame) and John Gulland, he immersed himself in this fascinating task. Fortunately the numerical data were good - thanks to the Norwegian government's measurement of growth of every whale taken by them since 1920 - and the recommendations which emanated from his committee played a major role in a process which led to the eventual ban on commercial whaling.

While still maintaining his interests in whaling, Kay returned to New Zealand in 1964 to become involved in management of the oyster dredge fishery. His now extensive experience in both research and management functions facilitated his next move which was to Canada to manage a major research station.

During the late 1960s Kay reports his first involvement with computers. Indeed they were so rare at that time that he had to drive 150 miles to the University of Washington (Seattle) to use their computer. After learning of their value he bought his first computer. This period saw his continued involvement in the rapidly developing Atlantic Salmon fishery and work on demersal fisheries, such as that for the halibut.

In 1972 Kay came to Australia to assume command of the CSIRO Cronulla Laboratory. He reports these early years as a time of exciting growth with the establishment of east and west coast research stations. He also was able to win the argument that CSIRO should have its own large research vessel to allow it to do seagoing work on fisheries. During this busy time he was able to maintain his active involvement in statistical work associated with the IWC.

He retired from salaried positions in 1977, but kept up his interests through contracts to study the collapse of the gemfish fishery in Australia, and the effects on dolphins of the fishing practices of tuna boats. Further good deeds were done through his involvement in the Canadian Royal Commission into the culling (slaughter) of baby harp seals. Particularly, he was interested in the relationship between the size of the seal population and fish stocks. He also investigated the level of social and economic dependence of the local Inuit people on harp seals, a dependence which had been threatened by the disruption to their hunt following the public outcry over seal hunting.

In reflecting upon his years as both participant and observer, Kay noted two major trends in marine science. Firstly, the development of quantitative aspects of science, which he ascribed to the rise of computers and calculators, and secondly, the increase in environmental awareness - the rise of 'Greenies'.

On computers and the ascent of quantitative biology, he noted that computers contributed to the developments of sophisticated fisheries models in the 1960s and 1970s. This development has been to such an extent that now problems are data limited rather than calculation limited.

On environmentalists, he noted that until the late 1960s there was little awareness of environmental issues. However, public interest in the environment was moved by issues such as whaling and the harp seal cull, and now extends to many marine organisms, communities and habitats. He warned that while the current impetus was strong, human society was known for being faddish, and that the 'green' edge may be blunted in the future

Kay concluded his acceptance address with some lessons learnt from a long life:

KRA Lesson 1 (for researchers) - research is finding the right questions - amassing and analysing data is not research,

KRA Lesson 2 (for natural scientists) - do not forget that organisms and phenomena are real things and have an existence,

KRA Lesson 3 (for ecologists) - understand what is in that black box: beware meaningless analysis though invalid assumptions,

KRA Lesson 4 (for life in general) - seize opportunities and don't be afraid of change.

[The above is a transcription of the (then) *AMSA Bulletin* editor (Dr Ian Tibbetts) notes from K.'s address. He apologised to K. for any errors contained therein - "They are all mine!"]

Reprinted from AMSA Bulletin 131, July 1995

Note: In his will, a bequest of \$15,000 was left to AMSA, with no specific instructions as to how he would like the bequest applied. AMSA Council decided the most suitable way to acknowledge the bequest and the work for AMSA that both K and Rosa so generously contributed, was to establish an ongoing annual award for AMSA students. The ***Allen International Student Travel Award*** was established in June 2008.



Please see these further articles

[Article from *AMSA Bulletin* #177, Summer 2008](#)

[Obituary from *Sydney Morning Herald*, 13th March 2008](#)