

**McArthur, Alan Grant** (by L. T. Carron in *Australian Dictionary of Biography*, Volume 15, (MUP), 2000)

Forester, was born on 21 July 1923 at Manly, Sydney, son of Cuthbert Grant McArthur, a Scottish-born storeman, and his native-born wife Vera Kathleen, née Gordon. His father had come to Australia at the age of 14 and served in the Australian Imperial Force. Growing up on a wheat-farm at Merriwagga, Alan completed his primary schooling by correspondence, then attended Yanco Agricultural High School where he established an enduring interest in Australian exploration. In 1941 he joined the Forestry Commission of New South Wales. After studying at the University of Sydney (B.Sc.For., 1945) and the Australian Forestry School, Canberra (Dip.For., 1945), he worked on plantation management in the Tumut and Orange districts.

On 18 February 1947 at St Jude's Anglican Church, Tumbarumba, McArthur married Gladys Charlotte Gardner, a 19-year-old dental nurse. Having been promoted senior forester, he was appointed the first full-time fire control officer of the Snowy Mountains area in 1951 and began his passionate, lifelong inquiry into the behaviour and control of forest and grassland fires. He devised a regional fire prevention plan which provided a model for similar operations elsewhere. In 1953 he transferred to the Commonwealth Forestry and Timber Bureau, Canberra, as fire researcher. He was promoted director of the bureau's forest research institute in 1970. Five years later he was appointed principal research officer in the Commonwealth Scientific and Industrial Research Organization's new division of forest research.

For more than twenty-five years McArthur studied the behaviour of fires in a wide range of fuel types, devising systems for rating the danger of fires under different meteorological conditions. These systems became an essential tool for rural bushfire brigades; they were adopted by the Bureau of Meteorology in forecasting fire-hazard conditions; and they were recommended by the United Nations Food and Agriculture Organization for use in developing countries. McArthur also prepared guidelines for controlled burning, a practice he regarded as essential in containing the disastrous fires to which Australian native forests are prone. Much of his data was derived from field exercises with forestry students to whom he lectured in 1954-70, first at the A.F.S. and later at the Australian National University.

The Western Australian royal commission into bushfires (1961) was one of several official inquiries to benefit from McArthur's advice. He participated in a number of international conferences, and wrote or co-authored some sixty papers on the behaviour and effects of fire and on watershed management. With R. H. Luke, he published *Bushfires in Australia* (Canberra, 1978) which remains an authoritative text.

An athlete in his youth, McArthur took up golf and enjoyed a game of bridge. He suffered from diabetes mellitus, retired in July 1978 and died of pneumonia on 9 November that year in Canberra Hospital. Survived by his wife, son and daughter, he was cremated with Presbyterian forms. He had been elected a fellow (1978) of the Institute of Foresters of Australia and was posthumously awarded the N. W. Jolly medal for that year.