

Vale Associate Professor Kevin Tolhurst AM



Dr Kevin Tolhurst AM was an Honorary Associate Professor in Fire Ecology and Management at the School of Agriculture, Food and Ecosystem Sciences, University of Melbourne. Based in Creswick, north of Ballarat, Kevin's death was a shock to friends and colleagues. His loss will be deeply felt by many in our community.

Kevin died suddenly of a heart attack after presenting on fire management to the community in Mallacoota, Eastern Victoria. Assisting fire-prone communities was a task Kevin enjoyed and one which those communities highly valued.

For decades Kevin was a pillar of the fire science community, both nationally and internationally. His knowledge and insights were highly regarded as was his remarkable ability to explain complex science in accessible and comprehensible language. Kevin helped numerous communities to better appreciate the landscapes they chose to call home by assisting residents and authorities to understand the importance and the dangers of fire.

Relatively few of us in the 'fire' business competently straddle the design and implementation of complex research and also be able to convey the real-world application of research findings. It was in this sense that Kevin was held in such high esteem by his colleagues and by the wider community.

Over recent decades, Kevin assisted many local and regional communities, and his fire-management knowledge and insights were in high demand during major bushfires as well as during subsequent reviews, inquiries and royal commissions.

His career spanned half a century and involved all aspects of fire management; from fire ecology, fire behaviour and the role of fuels; to suppression and recovery.

During his career, Kevin authored more than 200 scientific papers, and, every fire season, offered his scientific knowledge and insights to incident management teams and regional and state co-ordination and control centres during fire emergencies. In southeast Australia in particular, chief fire officers routinely sought Kevin's advice and counsel, both during and after major fire events. For decades, Kevin had a major influence on the region's fire management strategies.

Another component of Kevin's career was his determination to understand the longer-term effects of fire, and of the absence of fire, in the natural environment. Kevin led a 30-year, multi-disciplinary study into the effects of repeated low-intensity fires in dry eucalypt forests in central Victoria. This research revolutionised how ecological values are incorporated into fire management, how fuels are assessed and how bushfire risk is calculated. This research led him, together with Derek Chong,

to develop the PHOENIX RapidFire bushfire spread model. The computer program simulates bushfire behaviour, aiding real-time bushfire control operations by predicting how bushfires will move in real-time. The program has proved invaluable in bushfire risk analysis and for ecological and land-use planning. It is now used widely across Australia.

Kevin also initiated the Overall Fuel Hazard assessment process that is widely used across Australia. Part of this initiative was the development of the Wiltronics T-H Fine Fuel Moisture Meter that is used in prescribed fire operations. Kevin was a pioneer in the use of fauna and flora life history attributes in developing sustainable fire regimes.

Beyond his research Kevin, for decades, delivered lectures and led field studies for under- and post-graduate students. This was another role Kevin delighted in. Students valued these interactions and Kevin's enthusiasm in helping them appreciate the science of fire and ecosystem management. His ability to convey complex science in an accessible way was greatly appreciated by student ecologists and land and fire managers, many who went on to careers across Australia and beyond.

In 2015, Kevin was made a Member of the Order of Australia and, in 2016, he was also honoured with the International Association of Wildland Fire's Ember Award for excellence in wildland fire science. Kevin was to be in Coolangatta in November 2023 to receive the N. W. Jolly Medal from Forestry Australia. This award is Forestry Australia's highest and most prestigious honour for outstanding service to forestry in Australia. It recognises contributions from across the full scope of forestry and reflects the diversity of significant contributions being made across a wide range of disciplines and forest management activities.

Kevin Tolhurst's career spanned most aspects of forest and fire management in one of the most fire-prone regions on Earth. He was widely valued for his contributions to research and development, his published works, university teaching, professional training and for his decades-long involvement in public forums, formal inquiries and his assistance to the media. His efforts have inspired generations of park, forest and fire managers, planners and field staff to manage our precious natural areas sustainably. His legacy will be enduring.

Kevin – forester, ecologist, environmentalist – will remain long in the memories of his family and all those he assisted to better understand the landscapes we call home.

Gary Morgan AM AFSM and Mike Leonard