

Obituary: Professor Arthur McComb

Aquatic science lost a prominent researcher and research mentor on Sunday 8 October 2017 with the passing of Professor Arthur McComb. We offer our condolences to his family in particular, and to his many friends, and to record our pleasure at having been part of his life as friends, colleagues and students.

Although he was born in Melbourne and graduated from the University of Melbourne with a B.Sc. and a M.Sc., he was well known for his considerable contribution to research and teaching in Western Australia. He undertook his Ph.D. at the University of Cambridge, where he studied the effects of a plant hormone on growth of the aquatic hydrophyte *Callitriche*, graduating in 1962. In 1963, he took an appointment at The University of Western Australia where he remained until 1988, moving to Murdoch University as Professor of Environmental Science until his retirement in 1996, after which he became an Emeritus Professor and Senior Scholar in Residence in Environmental Science.

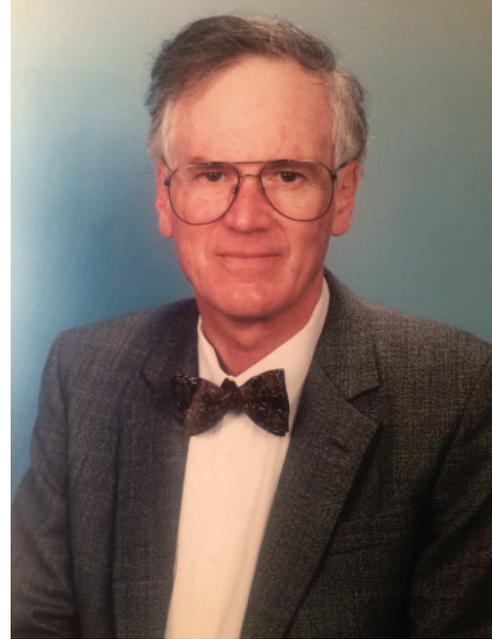
In addition to his academic interests, Arthur had what was a fascinating, if not an eclectic, set of wider interests that included his well-known interest in old cars, but also in antique furniture, silver and books, Persian carpets, Chinese porcelain, history, especially of early Australian explorers, the development of science and technology in China, ballet, opera and art. As a consequence, his family house was full of books on these many and varied topics. We leave it to readers to imagine the many fascinating conversations that surely occurred around the 'kitchen table' with family and friends.

His contributions to aquatic science were recognised in 1991 with the Australian Society for Limnology Medal. He also received awards from the Royal Society of Western Australia (1997), the Prime Minister's Centennial Medal (2001), and the Australian Marine Sciences Association (2002). He was both a Fellow of the UK Institute of Biology and the Australian Academy of Science (1995), and was awarded a D.Sc. from Murdoch University in 2007.

While at the University of Western Australia, his research focus shifted more and more towards wetland science. By combining a mix of plant ecology, physiology and chemistry he showed that he was a research and environmental visionary and leader. He initiated and led research on aquatic plants and nutrient dynamics that improved our knowledge and management of the Blackwood River Estuary, seagrasses in Shark Bay, the Swan River, and in Cockburn Sound, and of eutrophication in the Peel–Harvey estuarine system. His influence in aquatic science quickly developed and in 1988 resulted in the publication of two seminal books, *The Conservation of Australian Wetlands* (McComb and Lake 1988) and *Australian Wetlands* (McComb and Lake 1990).

These books were directed respectively at wetland scientists and managers and the wider public, showing his appreciation of the need to communicate science beyond academia.

Given the influence he had on our lives, we have provided below some personal reflections based on our interactions that started when we were students in the 1970s and sharing a laboratory in what was known as the 'Botany Annex' at the



Prof. Arthur McComb.

Botany Department, University of Western Australia. Although we all took different career paths, we all appreciate the profound effect he had on us as we shaped our careers from our student days into our work and lives over subsequent decades. In making these comments, we are joining together to recognise a great friend, mentor, and teacher.

Arthur guided me into wetlands science as one of his very early wetlands Honours students and later as my employer when I was engaged as a technician in the Cockburn Sound and Peel–Harvey Estuary studies. He set me on my career in waterways and catchment management and ultimately as a senior environmental regulator. As my teacher, mentor, colleague and friend, Arthur had a profound influence on my career and did so for many students who were privileged to have been taught and supervised by him [Robert Atkins, former Deputy Director General, Environmental Services, Department of Environment and Conservation, Western Australia, Perth, WA, Australia].

Arthur had an enormous influence on my life – the trajectory of my career, my approach to mentoring research students, and my approach to science in general. I will be forever grateful. Arthur's excellent mentoring skills came to the fore throughout my time with him as a supervisor of my Ph.D. which investigated the plant ecology and nutrient cycling of the Blackwood River Estuary in south-western Australia, and continued with a post-doctoral appointment to investigate the nutrient dynamics and blue–green algal blooms of Lake Joondalup. This enabled us to extend our work on the development of analytical methods for the chemical

analysis of water, sediments and plant material. This experience and expertise provided me with a skills-base that I was able to develop further throughout my subsequent career in university teaching and research [Robert (Bob) Congdon, Adjunct Senior Lecturer, James Cook University & Adjunct Research Professor, University of the Sunshine Coast, Qld, Australia].

Arthur was a respected scientist and a great teacher, supervisor and mentor to students, like myself. It was his whole-hearted enthusiasm in his lectures that stimulated my interest in pursuing studies of ecology and physiology of plants. Our research together began in an Honours program at The University of Western Australia investigating phytoplankton dynamics in lakes and continued as one of his early Ph.D. students looking at eutrophication in the Peel–Harvey estuary. Arthur's earlier career in plant physiology was an important reminder to me of the value of research directed to the better understanding of underlying processes in plants, something that encouraged me during my post-doctoral work on photosynthetic carbon uptake by aquatic plants. He had a keen mind and his insightful advice to me about the research work with which we were involved, always delivered quietly, was welcomed and appreciated [David Gordon, consulting environmental scientist, Perth, WA, Australia].

Arthur provided an opportunity for me to enjoy and learn about wetlands and then develop a career in wetland science. This was initially as an Honours student investigating nitrogen dynamics in urban lakes in Perth (WA). He later provided a lot of encouragement as I undertook a Ph.D. at James Cook University (Qld) and then throughout my further employment with various institutions in Australia and elsewhere. He was undoubtedly an incredible mentor, colleague and friend and someone who guided many students as they developed their careers, and also supported wetland managers to make the complex decisions needed to ensure we maintained or restored these valuable ecosystems. He was instrumental in having the INTECOL Wetland Conference in Perth in 1996 – the only time this seminal event has been held in Australia – which provided an unparalleled opportunity for his students and peers to mix with an international audience and showcase their own knowledge and expertise [Max Finlayson, Professor for Ecology and Biodiversity, Charles Sturt University, Albury–Wodonga, NSW, Australia].

We also acknowledge Arthur's support for the journal *Marine and Freshwater Research*, which is published by CSIRO Publishing and edited by Professor Max Finlayson. In particular, we recognise Arthur's support for the many co-authors he worked with to ensure that the scientific knowledge they accumulated through many exciting projects was shared with their peers. Having someone to help guide you into a career is one thing, having someone who also helped you write and publish your information and knowledge was another; both being incredibly valuable and part of the wider benefits that a person such as Arthur brought to the Universities where he worked, and to the many people who had the privilege of his wisdom and guidance.

The following twelve papers that Arthur published in *Marine and Freshwater Research* are cited as an indicator of the range of wetland research that he undertook and the authors that he supported, see: Black *et al.* (1981); Gordon *et al.* (1981); Froend and McComb (1994); McAuliffe *et al.* (1998); Paling *et al.* (1989); Qiu and McComb (1994, 1995, 1996, 2004); Qiu *et al.* (2003, 2005); and Wrigley *et al.* (1988).

C. M. Finlayson, R. Atkins, R. Congdon, and D. M. Gordon

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