

Vale Geoff Humphreys

It was with great sadness and regret that soil scientists around the world learnt that Associate Professor Geoff Humphreys of Macquarie University, Sydney, Australia died suddenly on Sunday 12 August 2007. He had been out jogging through bushland near his home when he suffered a heart attack. He was only 54.

Geoff was a highly respected and valued member of the Australian and international soil science community. He was renowned as a committed and tireless researcher and teacher with phenomenal levels of energy and productive output. His passion for understanding processes of soil formation and landscape development was an inspiration to all of us. Geoff played an active role in the IUSS and the Australian Society of Soil Science (ASSSI), and his passing is a terrible loss to soil science. The tributes to Geoff that have come from friends and colleagues all around the world bear testimony to the high esteem in which he was held.

Geoffrey Steel Humphreys was born in Sydney in 1953, and brought up in that city, being the eldest of five children. The early death of his father when he was only 7 years old thrust responsibility and a leadership role onto Geoff as he helped to care for his younger brothers and sisters, no doubt contributing to his strong authoritative character in later years. As a teenager, Geoff excelled in many sports, particularly rugby where he had a reputation as a skilled and tough hooker. He was a very accomplished scout, becoming a Queen Scout and was a prefect at his high school. During these years Geoff developed a love of hiking and adventure activities; he revelled being outside and exploring the wonders of nature. His brothers report of the long hard days they had out hiking in the wilderness, where Geoff pushed them all to their limits, all in the name of fun!

Geoff enrolled as an undergraduate at Macquarie University in the early 1970s, initially studying economics but soon transferring to the earth sciences where his real interests lay. He excelled at his studies and graduated with First Class Honours and was encouraged to move directly onto a PhD. In the following years Geoff pursued his doctorate part time whilst working in the highlands of Papua New Guinea and at the University of PNG, and raising a young family with his wife Janelle, his close and loving companion for the next 30 years. He gained his doctorate in 1985, and after a couple of years teaching at the University of NSW, took up a position in a multi-disciplinary team in the Land Management Program of the Research School of Pacific Studies at the Australian National University. This saw him return to PNG and also to other parts of Asia and the Pacific and even Africa for long field seasons. Geoff was fascinated by the spectacular and highly dynamic landscapes of these countries, which he investigated with boundless enthusiasm. He was also concerned about the extent of erosion and other land degradation that was common throughout these countries.

In 1994, Geoff returned to Macquarie University, teaching and continuing his research into processes of soil formation and landscape evolution. He particularly focused on the role of soil dwelling organisms, producing undeniable evidence of their significance in soil formation. In this work he brought together the disciplines of pedology, geomorphology and ecology, a unique approach and one that led to groundbreaking ideas. His collaboration with colleagues Ron Paton and Peter Mitchell led to the publication in 1995 of *Soils : a new global view*, a book that presented radically new ideas on processes of soil formation. The model they proposed placed a much greater emphasis on biotic and geomorphic processes such as bioturbation and surface wash, and less on the traditionally accepted pedogenic processes such as vertical movement of clay by eluviation. The book received international acclaim and in 1999 the three authors were awarded the GK Gilbert Award for Excellence in Geomorphic Research by the Association of American Geographers. This prestigious award is only given every three years and this was the first time it had gone outside America. In an article titled *Shock the World (and then some)*, Randall Schaetzl included it within the four most groundbreaking and influential treatises on geomorphology and pedology of the 20th Century. Other reviewers put the book at the front of a paradigm shift in the understanding of soil genesis. Receiving the award in America on behalf of the trio must have been one of the proudest moments in Geoff's career. He continued to collaborate with Ron Paton on soil genesis issues right up to his death, with two papers

critically evaluating the zonalistic foundations of soil science in the USA having just been published in *Geoderma* (2007, vol. 139).

Geoff recognised the critical importance of detailed quantitative observations of soil morphology at the macro and micro scales. In collaboration with others in Australia and internationally, he sought to unlock secrets of pedology revealed by soil morphological features, generating an impressive publication output along the way. He enthusiastically adopted and promoted new innovative techniques in his studies. He had recently made exciting insights into soil and landscape genesis with Macquarie University associates Marshall Wilkinson, Paul Hesse and others with the use of innovative soil dating techniques involving luminescence dating and cosmogenic radionuclides. Amongst other things, their results suggest that many soils in Australia are considerably younger than previously thought. Geoff was instrumental in the establishment of the Soil Morphology and Micromorphology Commission of the IUSS, which he chaired from 2002 to 2006 and was currently 2nd Vice Chair. In this role he is said to have breathed new life into the morphological study of soils. More generally Geoff has been credited with paving the way for a truly modern, interdisciplinary approach to pedology, one that effectively incorporates geomorphological and ecological principles, and this is perhaps the primary legacy of Geoff's career.

In addition to his fine research contributions, Geoff will be remembered as a great teacher and advocate of soil science and scientific research in general. As an Associate Dean of Research at Macquarie University, he was an energetic contributor on several postgraduate and research guiding committees. He was active in ASSSI, and was currently on the organising Committee of the Brisbane 2010 World Congress, as well as with his IUSS responsibilities. For 11 years he was co-editor of the *Australian Geographer* journal. He was a great communicator, always managing to clearly convey his ideas and inspire others with his enthusiasm. Although he was known to ruffle feathers at times with his strongly held views, this was always done in a spirit of constructive good will.

Geoff was widely admired for his commonsense and wisdom. He was the one that friends and colleagues turned to for sage advice, being described as "the tribal elder" of his Department (even though he wasn't that old!). Although initially he could appear almost intimidating, especially with his tough gravelly voice, his great warmth of character and good humour quickly became evident. Seeing Geoff enjoying a good belly laugh over a beer was a common sight on field trips. His description as an "affable old bear" was very apt. An essentially modest man, Geoff rarely referred to his own achievements, always preferring to sing the praises of others, particularly his students.

Geoff, so many of us are deeply saddened and upset by your sudden passing. We're going to miss your warm friendship, illuminating discussions and guiding hand. So many of us had plans for exciting collaborations with you that now cannot be. But we are all grateful for the time you spent with us and for your contributions to soil science. Thankyou and farewell Geoff.

Jonathan Gray and others
Macquarie University, Sydney



In the field (photo: K. Tomkins)