

# Vale Michael R.B. Gray 25 August 1941 – 28 July 2023

## Helen Smith

(With thanks and apologies to unknown photographers).

Dr Mike Gray, Senior Fellow in Arachnology at the Australian Museum in Sydney, died on Friday 28th July, aged 81 years.

Mike grew up in Perth, Western Australia, and came to Sydney after completing an MSc with the Zoology Department of the University of Western Australia on the ecophysiological adaptations of Trapdoor Spiders to aridity — work which was subsequently cited in a number of publications.

In late 1967, just prior to starting at the Australian Museum, Mike was involved with fieldwork in caves on the Nullarbor. During that trip he collected specimens that he would later describe as new species. From then, cave spiders remained an active research interest throughout Mike's career.

**Figure 1: Mike photographing specimens during a Nullarbor caving trip, Roe Plain, Madura, 1987**



Mike started at the Australian Museum as an Assistant Curator (Arachnology) in 1968 when the Arachnology collection was separated from Entomology. The large number of spider enquiries was one catalyst for this split, with considerable public interest in spiders such as the Sydney Funnel-web.

Once in Sydney, Mike commenced an active field collecting program to grow the Museum collections and sample habitats throughout the state and further afield. He also set up a network of volunteers who would periodically maintain long term pitfall traps in strategic habitats.

Later, Mike was involved with many significant surveys such as World Heritage Rainforests (with the Queensland Museum), Lord Howe Island, and the North East Forests Biodiversity Survey (with NSW National Parks and Wildlife Service). Today, almost 11,000 specimen lots are registered in the AM database with Mike listed as collector.

At the Museum, Mike met his wife-to-be, Greta Jensen, who was at that time employed in the Marine Invertebrates section. Greta also helped Mike as a technical assistant for a while and produced most of the illustrations in Mike's first taxonomic paper in 1973. Mike and Greta went on to have two children, Emma and Anna.

The Arachnology collection needed considerable curatorial attention after many years with no dedicated arachnologist on site and there was no database. Mike introduced modern curatorial techniques and standards and with aid of an assistant, started databasing specimens in 1977. By 1990, the number of databased specimens was up to 28,000 (and today we have over 131,000).

An important part of Mike's role as a public service employee was always public engagement. Public interest in spiders has always been high, and there was a heavy load of public enquiries, talks, magazine articles and a very successful in-house production of the Spiders! Exhibition in 1997.

Alongside all this were Mike's research interests. Cave spiders have already been mentioned, and some of these taxa overlapped with Mike's research focus in the cribellate groups Austrochiloidea, Filistatoidea and what are now referred to as the "marronoid clade". Mike often collaborated with other researchers and was generous in attributing co-authorship to technical assistants who contributed substantially to his papers.

Funnel-web spiders (Atracidae) were also a research focus, and Mike studied these for a PhD part time through Macquarie University. His thesis “A Systematic Study of the Funnel Web Spiders (Mygalomorphae: Hexathelidae: Atracinae)” was awarded in 1986. In the acknowledgements, Mike thanked (the then late) Museum Associate Vera Levitt-Gregg for awakening his interest in this group.

**Figure 2: Public engagement, late 1990s**

Around these core themes were many smaller research projects on a variety of topics. Along with a scattering of miscellaneous taxonomic papers were reports of faunal surveys, chapters on venoms, and reviews adding up to about 80 publications in all. Of particular social importance (along with Mike’s funnel-web work) was a series of five papers co-authored with physician Geoff Isbister, who compiled a database of confirmed spider bite cases who were able to supply a spider specimen, later identified by Mike.



Through this, the pervasive myth of the flesh-eating necrosis supposedly caused by the bite of Australian White-tailed spiders (*Lampona* spp.) was laid to rest (although some proportion of people who show up at talks and open days still seem to believe in it). This White-tailed Spider bite paper saw Isbister and Gray nominated as Eureka Finalists in 2004 for the Australian Skeptics Eureka Prize for Critical Thinking.



Mike was active on a number of scientific committees and societies through the years, including the Jenolan Caves Scientific Advisory Committee, the Australian Venoms Research Council, and the Linnean Society of New South Wales. In particular, he played an active role in the latter, after being accepted as a member in 1981, he was elected to council in 1988, and was President in 2012–2013. Mike also served as the Chair of the Joyce Vickery Scientific Research Fund grants committee for the Linnean Society for many years.

**Figure 3: Studying the spider silk suspending a Rock Warbler nest from a cave roof, mid 1990s**

At the Australian Museum, as Mike’s career progressed, increasing amounts of time needed to be spent on administration. A lengthy stint as the Head of Division of Invertebrate Zoology starting in 1989 slowed down research efforts for a few years. Despite this, Mike moved on to become a Research Scientist, with later promotions through the grades to become a Principal Research Scientist in 2003.

Over the years, Mike supervised a number of Honours, Masters, and PhD students and was an Honorary Associate in the Faculty of Science and the Faculty of Agriculture Food and Natural Resources at Sydney University from around 2000 until 2006. He was also mentor to Graham ‘Wishy’ Wishart, a retired pharmacist who took an interest in the Trapdoor spiders and other wandering mygalomorphs that fell in his swimming pool. With Mike’s encouragement and guidance, Wishy published several papers on the trapdoor spider fauna of New South Wales.

Mike retired in 2009 and finally found time in 2010, as a Retired Fellow, to publish his PhD thesis findings – his revision of the Australian Funnel-web spiders. He continued to work on marronoids and, to a lesser extent, filistatids, for several years until a move to the Blue Mountains made the trip to the city a less attractive proposition. Mike’s final publication was as a co-author in 2022.

Mike leaves behind him a substantial legacy of work across many unique southern taxa and was a pioneer of cave spider research in Australia. Through his unpublished notes and through the training, mentorship and encouragement of others, his contributions to Australian arachnology will continue for many years.



## Links to the Wider World

This section aims to provide links to articles and items related to caves and karst that may lie outside the normal ACKMA sphere of influence but may still be of interest. They are intended to spark your interest and maybe prompt you into doing more research - they are not necessarily meant to be definitive sources of information. All links are functional at the time of publishing but may not open if viewing at a later date.

### **Scottish Caves of Legend: 17 beautiful caves in Scotland with fascinating stories** By Thomas Mackay, The Scotsman, June 1, 2023

<https://www.scotsman.com/heritage-and-retro/heritage/scottish-caves-of-legend-17-beautiful-caves-in-scotland-with-fascinating-stories-4165748>



If you’re a nature enthusiast - or interested in Scottish mythology - you’ll enjoy Scotland’s many diverse and breathtaking caves that are scattered from the lowlands to the highest peaks of the Scottish Highlands.

So, let’s crack into these seventeen Scottish caves, caverns and coves and explore their rich heritage while doing so.

**Figure: Smoo Cave, Durness, photo via  
WikiCommons**

