Dr Eric Glasswell Matthews Obituary

9 February 1932 – 18 January 2022

Eric Matthews had a rich and productive life. He lived in numerus European countries during his childhood, with the family moving from Paris to Rome in 1939. It was in Italy at the age of seven that he began his interest in insects with the encouragement of a Belgian nanny. Thereafter insects of all types became his life's main interest. Some beetles from his Italian childhood collection are now preserved in the South Australian Museum. Eventually the family moved back to the US with Eric completing his schooling and then enrolling at Columbia University for his bachelor's degree, completing it in 1953 with a major in zoology. He served in US Army (1953–1955), and married Barbara in 1961. They raised three children, daughters born in 1962 and 1964, and a son in 1970.

Although interested in insects from an early age he did not begin formal training as an entomologist until starting a PhD at Cornell University (1956–1960) on coleopteran taxonomy. From 1960–1961 he held a National Institutes Health Postdoctoral Fellowship at Harvard University, followed by a teaching position at the University of Puerto Rico (1962–1969), reaching the rank of Professor. Eric came to Australia during a sabbatical leave (1967–1968) on a prestigious Fulbright Fellowship and was attached to CSIRO's Division of Entomology. He and his family returned to Australia permanently in 1969 on a CSIRO Fellowship to work on the dung beetle programme which was aimed at breaking the breeding cycle of deleterious biting flies, bush flies and intestinal cattle parasites which breed or disperse via unburied cattle dung. Early in the beetle introduction program, CSIRO realised that the native dung beetles were poorly known and as no one had worked on them thoroughly for more than 50 years, Eric was tasked with reviewing the Australia fauna. During this time, he undertook fieldtrips throughout the continent, and published a series of user-friendly monographs in the 1970's revising the whole dung-beetle fauna, describing many new genera and species and bringing the number of known species to 284.

Dung needs to be moist to be worked by the beetles and yet the dung of native Australian mammals, such as kangaroos, is already relatively dry and dries out further after deposition. One group of dung beetles have solved this problem in a remarkable way. The adult beetles have claws adapted to gripping hair, enabling them to cling around the anus of kangaroos. There they wait at the 'factory door' and leap aboard as the dung pellets emerge! Eric showed that the specialised prehensile claws have arisen twice in Australian dung beetles, each with a different locking device to lock the hair in the claws.

When Eric arrived in Australia he knew immediately that this was the country he wanted to live in, mainly because of the extraordinarily diverse insect life. After his fellowship at CSIRO ended he applied for every job opening available in Australia and in 1970 was appointed as Assistant Curator of insects at the South Australian Museum (SAM). Eric's important textbook *Insect Ecology,* published in 1976, was a highly readable account of how insects respond to Australia's unique environment. He had only been working in Australia for eight years and yet was able to produce a book that became a classic text recommended to university students for years afterwards. Eric became Curator of Entomology at SAM on the retirement of Gordon Gross

Eric was a quiet achiever with a self-deprecating nature. At SAM, Eric changed his principal research interests from dung beetles to tenebrionids. He was a natural educator even if he did not recognise this himself, having said at one point that he was glad to get a museum job because, in his own estimation, he was pretty hopeless as a teacher. That teaching experience was in Puerto Rico where he had to teach in Spanish, one of seven languages that Eric was conversant in. Eric wrote in an engaging style influencing the appeal of his

eight *Guidebooks to the Genera of Beetles of South Australia* which distilled his extensive knowledge into easy to use illustrated keys, supported by photos and text, which allowed most beetles to be identified with certainty. The utility of these books extended well beyond South Australia and are still used widely in other states.

Eric retired from SAM in 2000 having published 46 scientific papers, guides and text books but stayed on as an honorary researcher. During this period, he was very productive and published a further 21 scientific papers, book chapters and guidebooks. Eric, and his generous nature, will be remembered fondly and with gratitude by his many friends and colleagues.

Steven Donnellan and **Andy Austin**