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South Australian Museum

# Archie McArthur Ant Systematics Scholarships

South Australian Museum  
North Terrace, Adelaide  
[www.samuseum.sa.gov.au](http://www.samuseum.sa.gov.au)







## The scholarship

Commemorating the important work of Mr Archie McArthur OAM in the field of Ant Systematics at the South Australian Museum, this competitive, merit-based scholarship aims to:

- Support and encourage PhD students in the study of Ant Systematics;
- Increase awareness of the Museum's research in the university community;
- Provide opportunities to deepen partnerships between the Museum and universities; and
- Enhance the Museum's Ant Collections.

Archie, affectionately known as the South Australian Museum's Ant Man, was a gregarious, engaging and outgoing researcher and science communicator. It is these very qualities that this scholarship will seek to mentor in the next generation of scientist.

The Archie McArthur Ant Systematics Scholarship is intended to supplement a major scholarship held by the recipient. Commencing in 2020, the scholarship provides \$5,000 per annum stipend funds and \$3,166 per annum in project costs. Funding will be awarded for up to 3 years with the possibility of a six month extension to stipend funds only.

A progress report must be forwarded to the Head of Research and Collections every 12 months for review, and then to share with the McArthur family. Any publications arising from work supported by the scholarship should include an acknowledgment to that effect within the publication.

The student will be supervised by Professor Andrew Austin, University of Adelaide and co-supervised by a South Australian Museum scientist.

Applicants must:

- Be an Australian Citizen, Australian Permanent Resident or New Zealand Citizen who is acceptable as a candidate for a PhD degree at the University of Adelaide.
- Hold a First Class Honours or equivalent degree in a relevant area.
- Hold or have been awarded a Research Training Program Scholarship (RTPS).
- Be undertaking a PhD research project related to the Museum's Ant collection. Information about the Museum's collections can be found on the Museum's Collections page on our website.
- Demonstrate a well-developed understanding of science communication and a willingness to engage.

The competition and recruitment will be managed by the University of Adelaide, in consultation with the Museum and the McArthur family.

Applicants' scholarship selection must include Research Training Program Scholarship and the Archie McArthur Ant Systematics Scholarship.

Applications open on 1 September 2019 and must be received by 30 September 2019. Intending applicants must discuss their application with Professor Andrew Austin prior to submission.

## Biography

Archie McArthur worked as a volunteer in the entomology section at the South Australian Museum for 26 years. The study of *Camponotus* ants became his passion.

He graduated from the University of Adelaide in 1948 with Bachelor of Electrical Engineering. His study was interrupted by World War II when, at the age of 20, he was made a sub-lieutenant at in the Royal Australian Navy. Archie took up farming instead of engineering so how did all this ant business start?

In 1948 he inherited a farm devastated by rabbits with the top soil blown away. He fenced off an area and single-mindedly destroyed the rabbits. One species of ant came back when almost nothing else was left, followed by natural vegetation. He could find neither books nor local authorities to help him to identify the ant. He finally got his answer from CSIRO in Canberra – the hard-working ant responsible for the revegetation of Archie's barren paddock was *Camponotus terebrans*.

That so little was known about such a great achiever as this ant seemed wrong to Archie, and his response was to throw himself into finding out as much as he could about this ant and its relatives. Aside from discovering previously unknown levels of diversity within *Camponotus*, he also published a paper showing how the ant that first attracted his attention, *C. terebrans*, contributed to revegetation of bare sand by distributing the seeds of Acacias across the landscape.

Archie's outstanding legacy to the world's knowledge is his publications that summarise his discoveries on the diversity of *Camponotus* ants, one of the most ecologically significant ant groups. His publications published nationally and internationally, enable interested specialists and non-specialists alike to identify species, the essential first step in understanding their biology and ecology. He collaborated with numerous colleagues during his studies, including PJM Greenslade and RW Taylor, and co-authored papers with M Adams, P Klimes, R Leys, LR Miller, SO Shattuck and J Weyland. The greatest living entomologist, Edward Wilson, Harvard University, applauded Archie's last book as a 'very significant addition to systematic literature.'

Archie was a self-taught and skilled taxonomist specialising in two closely related genera of ants, *Camponotus* and *Colobopsis* that occur in many parts of the world. A taxonomist has to master the both published and unpublished knowledge of anatomy, physiology, behaviour and biogeography of the study group in fine detail. In addition, the taxonomist has an important responsibility to publish guides and identification keys that enable others to identify new species discoveries. Most biologists learn the science of taxonomy as students, so it is a tribute to Archie's native ability and hard work that he successfully acquired this knowledge after a lifetime of work and experience in areas quite unrelated to the technicalities of insect taxonomy.

Archie, affectionately known as the South Australian Museum's Ant Man, was a gregarious, engaging and outgoing researcher and science communicator. It is these very qualities that this scholarship will seek to mentor in the next generation of scientist.

Archie also built up the South Australian Museum's ant collection from a few jars that he fitted into a suitcase that he carried to Canberra all those years ago, to the hundreds of thousands of specimens that now comprise an important and lasting legacy for future researchers.

His last great gift to the world and the next generation of ant taxonomists was put on the web all of his unpublished information on the measurements and morphological characters along with photographs for the 100 or so *Camponotus* ant varieties that still remained unnamed. He thereby ensured that a successor could pick up where he left off, but with a far better level of understanding than that which had confronted Archie when he began his own studies.

Archie's ants formed the solid core of his loveable eccentricity.

The University's Online Application form is available at:  
<http://www.adelaide.edu.au/graduatecentre/admission/apply-now/>

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