

FOUNDATION FUNDS

GROWING THE HERBARIUM FUND

Built up over nearly a century, the University of Melbourne Herbarium houses 150,000 specimens of plants, fungi and algae, including historically important collections and artwork.

Named MELU, it is part of Australia's network of herbaria, is represented on the Council of Heads of Herbaria and is registered with the Convention on International Trade in Endangered Species (CITES) and Australian Quarantine. It is a significant botanical research and cultural collection.

Our new subtrust "The University of Melbourne Herbarium Fund", was established in 2016 and we have made significant progress towards our goal of raising \$1million.

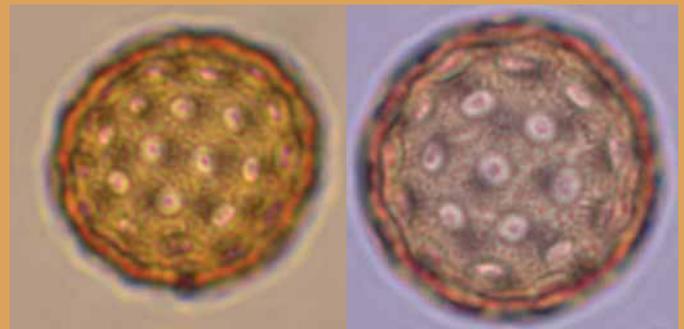
Why are we raising funds?

- To modernise and enhance the herbarium capability beyond what one curator can achieve
- To improve the curation of the collections for users including for research
- To ensure the taxonomy of the plant collections is up-to-date for users
- To make the collection and associated information broadly accessible by digitising specimens and contributing to Australia's Virtual Herbarium.

Mining the herbarium records

During the period 2010-2015, 71 scientific publications resulted from the herbarium collection used by staff and students.

- Herbarium specimens provide samples for DNA analysis, which reveal genetic relationships and population variation and inform taxonomy. For example, herbarium samples have been used to measure genetic variation tussock grass *Poa labillardierei*, which includes two named varieties in south-eastern Australia. Tussock grass is an important food source and habitat for wildlife



+ Fossil pollen (left) was identified as chenopod type pollen based on the living pollen (right) extracted from a MELU specimen collected by B. Easterbrook, 1948, *Eriochiton sclerolaenoides* (Woolly-fruit bluebush, family Chenopodiaceae). Bar = 10 microns

- Herbarium specimens were recently used by research student Kia Matley to prepare a reference collection of pollen to enable her to identify the species of fossil pollen and hence the vegetation that grew near caves on the Nullarbor in the geological past. The microscope slides and photographs of the living plants have been lodged in the herbarium for future research
- Data-basing the collection is contributing to Australia's Virtual Herbarium (AVH) and Atlas of Living Australia (ALA). These feed into international biodiversity data portals such as the Global Biodiversity Information Facility (GBIF). In the last 12 months, there have been 699,129 downloads: 35% ecology, 30% research, 5.5% education and 1% environmental assessment.