

Discoveries are not always of new species, or of unusual natural phenomena. Occasionally they can take the form of personal enlightenment, or re-establishing what was thought to be a long-lost connection with one's heritage. Such a discovery was made recently in DBCA's Western Australian Herbarium, which is the repository of all things relating to WA's exceptional flora, including about 800,000 dried plant specimens that provide an invaluable record of the State's floral biodiversity.

The Herbarium often hosts tours for interested groups. Guests get to see its inner workings and follow the journey each specimen takes from being collected in the wild to becoming a permanent part of the Herbarium's collection, ultimately contributing much-needed knowledge to our understanding of the taxonomy, distribution and conservation needs of WA's plants.

Tours are conducted for a wide variety of groups, from schools, universities, Indigenous rangers, other government departments, natural history societies and garden clubs. Many participants are astounded by the extent of the Herbarium's collection, which includes specimens from some of the earliest voyages to our coast. The oldest Western Australian specimens are those collected by Robert Brown, the botanist who accompanied Matthew Flinders on board the HMS *Investigator* when it surveyed the Australian south coast in 1801–1803. Despite being more than 200 years old, these specimens are still in perfect condition and attest to the ever-vigilant attention paid to the on-going maintenance of the collection.

During a recent tour by the 'Hills Garden Club', one of the participants, Merrilyn Mellis, described her own historical connection to WA flora. Merrilyn's great-grandfather was Albert John Hall, who joined the WA Natural History Society and became a foundation member of The Royal Society of WA in 1913. Albert, affectionately known as 'Royal Albert Hall', was a skilled floral artist, who painted more than 600 individual flowers in the early part of the 20th century. His paintings were



Spanning the centuries

compiled in a series of eight volumes, five of which were lodged with the Battye Library in 2012 as the Hall Collection. Merrilyn was curious; could some of the specimens that Albert painted be lodged in the Herbarium? Albert's paintings often bore the handwriting of one of the Herbarium's early curators, Charles Austin Gardner, and it had previously been assumed that Albert had not retained any dried plant specimens and instead took his paintings along to Gardner for him to identify. This was confirmed by Albert's grandson, who remembered his grandfather doing just that.

In the past, searching for specimens collected by an individual would have been a mammoth task. However, in the mid-1980s the Herbarium embarked on an ambitious undertaking, to compile a searchable database that included pertinent information relating to each specimen in the collection. This information included the species name, location (geolocated), date of collection and its 'collector'.

Entering A.J.Hall in the search field yielded a list of 13 specimens, all collected in the 1920s and 30s. This was certainly Merrilyn's great-grandfather and she returned to the Herbarium to view his collections in person. The specimens themselves were relatively unimpressive, and unfortunately there was no indication whether they were indeed the subject of one of Albert's paintings, but the sense of

Left to right Albert Hall's paintings of *Acacia* and *Hovea*; Merrilyn Mellis with one of his specimens.

Photos – John Huisman/DBCA

'connection' Merrilyn got when she opened the first folder was profound. Here she was able to touch a plant that was collected close to a century ago by her ancestor. It was an unexpected, yet deeply felt, personal experience that Merrilyn will surely treasure.

To this day the details of all specimens lodged in the WA Herbarium are databased. The value added to the collection by this practise is immense, with the data visible online via DBCA's 'FloraBase' and 'NatureMap'. Combined with data from other Australian and New Zealand herbaria, it forms the 'Australasian Virtual Herbarium' and a component of the 'Atlas of Living Australia'. These data have been used in numerous scientific studies and environmental assessments; their value increasing exponentially as new data, such as climate, habitat and soil type are added to the mix. Many applications, for example assessing how the ranges of species might have changed over time in relation to climate changes, could not have been envisaged when collections were first made, primarily for taxonomic studies. And now we can include a century-spanning connection between a prominent artist and his great granddaughter.