

Scientific Curation Grimwade's Eucalypts

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Plant specimens form the basis on which species are named, and thus are the foundations of botany. The specimens themselves however, be it leaves, fruit or flowers, only tell part of the story of the organism. Without data on its habitat, collection date and location, the scientific value of the collected plants are lost, and they would simply remain a curiosity. This is the current state of the eucalypt fruits in Sir Russell Grimwade's eucalypt cabinet. Although they are named, no information is available from the cabinet on their locations and dates of collection, and even on their collector.

The aim of this project is to curate the eucalypt fruits in the cabinet, uncovering the world in which they lived. This will involve collating data across various sources, and creating a catalogue with scientifically important data, particularly the identification, collection date and locality. To begin the search for information, the resources that may be useful must first be identified. Four main documents appear to be relevant: the eucalypts cabinet itself, Grimwade's 'An Anthography of the Eucalypts', a travel diary with trips from 1922-1930, and "Botany of the Russell Grimwade Expedition" by James H. Willis, from the National Herbarium of Victoria, detailing the flora of Grimwade's 1947 trip across the Nullarbor. These all describe, in one aspect or another, Grimwade's involvement with the eucalypts across Australia.

Eucalypt cabinet

The Eucalypt cabinet, constructed from *Eucalyptus* timber, is made up of 10 drawers, though only 7 are filled. Each drawer in the cabinet consists of up to 30 boxes containing eucalypt fruits, flowers, and occasionally leaves. Labels for the eucalypts are written on the boxes, although only the second part of the binomial name was used, i.e. *camaldulensis*. The location of only 2 eucalypts were written on the boxes, with *Eucalyptus johnstoni* supposedly collected from Mt. Wellington, and *E. papuana* from Alice Springs.

The drawers offers no further information on the source of these eucalypt fruits. To determine their origin, as well as dates of collection, other resources must be consulted.

Anthography of the eucalypts

Grimwade's photographic exploration of the eucalypts in "An Anthography of the Eucalypts" is another of his works with eucalypts. This book, containing seventy-nine photographic plates of eucalypts, was published in 1920. Descriptions of the species and their habitats accompany the image in the book. The plates used in the publication, as well as a further 59 glass plate negatives of the eucalypts were donated to the University of Melbourne Archives, totalling 138 photos, have been accessioned to the Atlas of Living Australia database prior to this research, and this consists of 98 taxa, 88 which are individual species. Several taxa in the book are not found in the cabinet.

Travel diary

A travel diary in the University of Melbourne Archives records Grimwade's trips from 1922 to 1930, written in his own hand. Though this document is better known for the documentation of his trip to Goondiwindi to see the eclipse, most of its pages list eucalypts that were seen and identified along the way. Detailed descriptions of the habitat, including soil, aspect and physical geography, along with the habit of the trees, accompany the lists. A total of 50 eucalypts were identified in the notebook, across 35 pages. *E. saligna* and *E. botryoides* were among the most frequently mentioned eucalypts (Grimwade 1930), corresponding to their abundance and wide distribution.

1947 Nullarbor expedition

In August to September 1947, Sir Russell Grimwade led an expedition through South Australia and Western Australia, following in the footsteps of Edward John Eyre to cross the Nullarbor. Accompanying him was botanist James Willis, of the National Herbarium of Victoria, set with the task of collecting herbarium specimens. Though no written record by Grimwade on the trip could be found, Willis kept a detailed record of the trip, including where he collected a total of 38 eucalypts (Willis 1951). It is most likely that Grimwade also collected alongside the botanist, and the 38 species collected by Willis may only represent what was required by the Herbarium, instead of what was present in the landscape. It is mostly likely that Grimwade would have also collected from the species that he lacked during this expedition, as much of the south/southwestern species distributed in that region are represented in his cabinet.

Results

Even though collection of the eucalypts was not explicitly mentioned in any of the resources, the travel diary provides the strongest link to the eucalypt fruits in the cabinet, as this appeared to be the trip where collection of the specimens began. The reasoning for this is as follows.

Although Grimwade completed the first drive from Melbourne to Adelaide in 1905, there is no mention of eucalypt collecting in his newspaper interview after the trip.

The Australian Dictionary of Biography's mention of Grimwade's cabinet-making skills – "At home, in his workshop, he developed cabinet-making skills of a very high order, using native timber" (Poynter 1983) – suggests that the eucalypt cabinet was not completed until at least the purchase of Miegunyah, and with it his workshop, in 1910.

Furthermore, 'An Anthography of the Eucalypts', published in 1920, contains eucalypts that were not represented in the cabinet, such as *E. acacioides*, suggesting that the cabinet collection did not begin until after the completion of the publication. On the other hand, all eucalypts mentioned by the travel diary are represented by fruits in the cabinet.

Finally, as there appeared to be no trips around Australia made by Grimwade prior to his 1922 trips, the wide diversity of eucalypts in the collection could not have been collected prior to that year. Only 10 of the eucalypts were native to places that were not known to have been visited by Grimwade, and rest of the collection overlapped with his travels, which once again suggests that the eucalypts were collected during these trips.

As such, it would be reasonable to posit that the collection only begun after 1921 at least, which is after the completion of the Anthography. Thus, Grimwade's travel diary, with the travels dating back to 1922 would likely have been the first, and perhaps only record of the eucalypts fruits in his cabinet.

Of the 190 specimens, 76 were mentioned in either his travel diary, or by Willis (which would have also been what Grimwade would have seen). The remaining eucalypts mostly consisted of Southwestern species, and were most likely obtained during the 1947 trip, as this was the most poorly documented trip with no sources from Grimwade found by this research. Their current distributions, according to the Atlas of Living Australia, do overlap with the locations through which he travelled, and as such should have been encountered, and possibly collected, by Grimwade.

The 10 species in the cabinet from far north or central Australia mentioned earlier are found in areas that would not have been traversed by Grimwade during his travels. For instance, *E. tetradonta* is only found in the far north, and *E. staigeriana* has only been recorded from Cape York Peninsula, although there appeared to be a sighting as far south as Coffs Harbour. Due to the paucity of these far-flung eucalypts in the cabinet, it is likely that the fruits of the species were collected by someone else or grown and sent to Grimwade, and the rest of the eucalypts, consistent with his routes, can still be considered to have been collected during those trips.

From this data, a database could be created, cataloguing the eucalypts in the cabinet. Their names were updated to reflect current scientifically accepted names, and their current distributions in Australia is listed. This showed that the eucalypts were distributed around the areas travelled, further evidence that supports the eucalypts being collected during the trips. The species mentioned in each trip have been labelled either 1, representing the trips around eastern Australia from the travel diary, or 2: the trips towards Western Australia. Those that were labelled 1 can be further differentiated into each of the 4 trips recorded in the diary, labelled a, b, c and d, which are his 13/09/1922, 15/09/1922-22/09/1922, 18/03/1924-03/04/1924, and 07/06/1930-09/06/1930 trips respectively. These trips can be visualised on the map (Fig. 1), with the locations that Grimwade visited.

The map, the database, as well as a transcript of Grimwade's travel diary shall be made available as to facilitate future review and update if new information regarding the eucalypts is found.

Conclusions

Through examination of the various documents created by, and associated with Sir Russell Grimwade's travels around Australia, the identities of the eucalypts have broadened beyond just their names. Despite this, no information could be found during the course of this research regarding almost half the eucalypts, mostly from the southwest, but they can be inferred as to having been collected during the 1947 trip. Due to lack of evidence, however, no trip number was assigned to these eucalypts in the database. From simply the names of these fascinating fruits, they have told a small, but significant part of their history. Further research may yet uncover the undiscovered aspects of this unique and valuable collection.

Sources

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Appendix

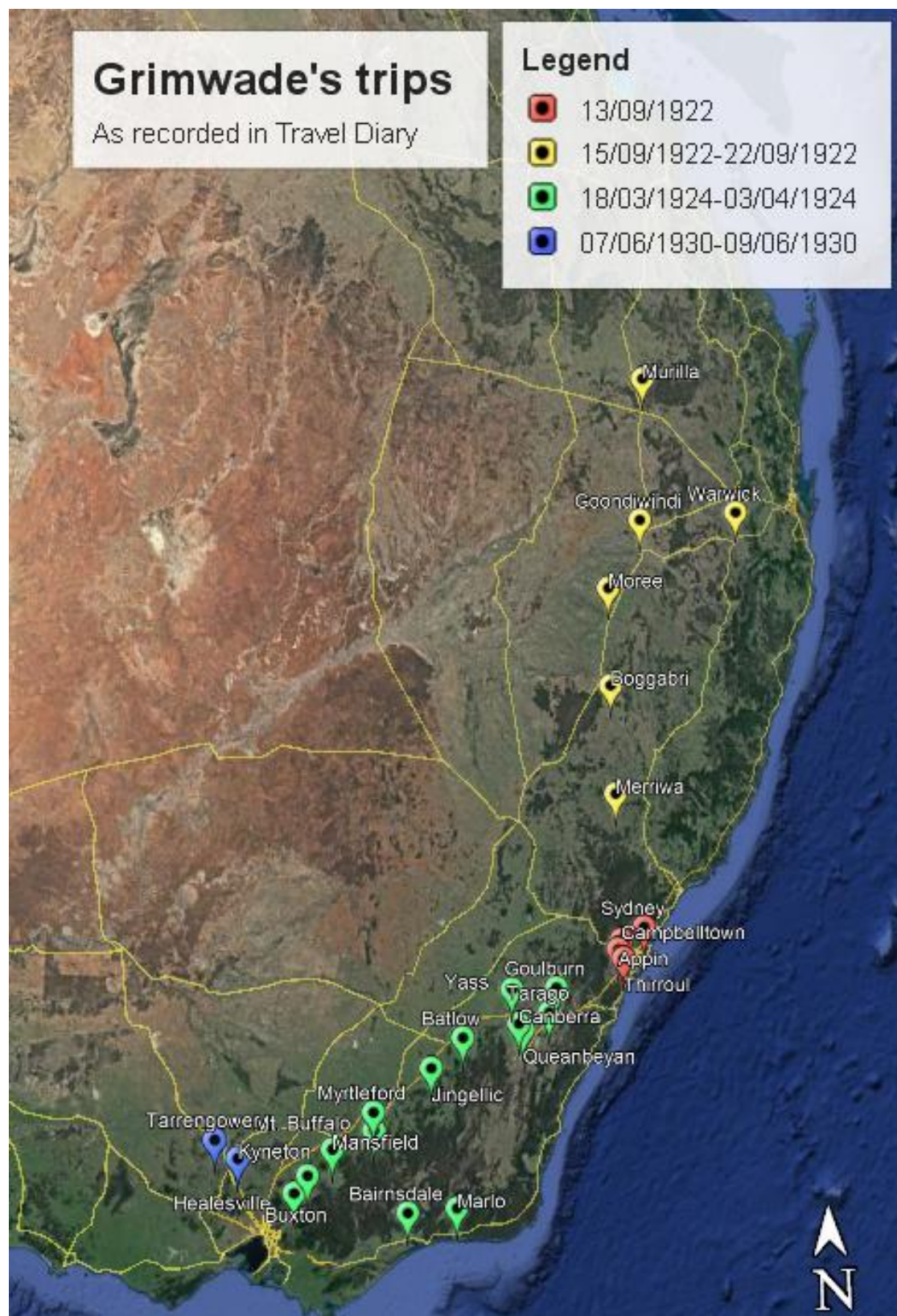


Figure 1 - Map of Grimwade's travels as mentioned in his travel diary. Eucalypts were identified at these locations, and possibly collected. The colours correspond to eucalypts mentioned in the database: Red = a, Yellow = b, Green = c, Blue = d.