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MEDIA RELEASE



Collection of weeds offers great snapshot of Victoria's plant life

When plant enthusiast Raleigh Black began collecting specimens of weeds in the 1920s, he would have had little idea of how important his work would be to today's botanical scientists.

Today, however, the collection is providing botanists at the Royal Botanic Gardens Melbourne with first hand information about where these agricultural weeds have spread through Victoria and how they can be managed.

Thanks to a \$60,000 grant from the Hugh Williamson Foundation, the Black Collection is the latest in a line of collections held by the National Herbarium of Victoria that has been curated by botanists and volunteers.

Professor David Cantrill, Chief Botanist and Director of the Royal Botanic Gardens, said: "Without doubt, the Black Collection is one of the most important collections we have because it provides historical snapshot of what weeds were present almost 100 years ago enabling us to trace their spread and manage them better."

"For example, we have the earliest Australian record of *Juncus tenuis* (Slender rush) which Black collected in 1941 and which is now a widespread weed in temperate Australia," said Professor Cantrill.

"He also collected the only Australian collection of *Doronicum orientale*, (Leopard's Bane) a plant which failed to naturalise."

"The question we now have to ask ourselves is why does this happen?" said Professor Cantrill.

Around 20 per cent of agricultural weeds in Australia have either been introduced or cultivated.

Raleigh Black (1880-1963) collected mostly in Victoria and Tasmania while working for the Tasmanian Council of Agriculture and then in Victoria. He added to this collection through exchanges with other Australian collectors, as well as in North and South America, Europe and Asia.

As well as being an avid amateur plant collector, Raleigh Black made a number of useful inventions, including a "disease-proof drinking trough for stock", an incubator for hatching chickens and a wine bottle that could not be refilled or contaminated.

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Background: Why is the study of weeds important?

When Europeans first reached Australia it was either with great fascination at the botanical novelty and variation or with contempt for its alien newness.

Many of the introduced weeds that now threaten our indigenous flora are plants that have been much loved in England: English ivy, Scotch thistle, holly, English broom and of course blackberry.

The love of plant collecting through the years has also introduced more serious concerns from places with climates and conditions similar to our own, such as South Africa, the Mediterranean, South America, California, Mexico, India and even other parts of Australia. *Pittosporum undulatum* is indigenous in east Gippsland and perhaps as far west as the Strzelecki Ranges but has spread as weed and become naturalised in other parts of the state (and Australia) probably as a result of seed spreading by introduced birds (e.g. blackbirds).

These sudden arrivals, without the original restraints that may have evolved with them such as predators, pathogens or competitors, have had a clear run in a new ecosystem. Some have the capacity to blanket areas of natural vegetation.

Weeds have always been considered a problem in agriculture and horticulture, they have been somewhat taken for granted in the natural environment. Governments have responded with such initiatives as the National Weeds Strategy (1997) and the Victorian Weeds Strategy (1998).

An estimate before 1998 put the direct cost of weeds to Victorian agriculture at more than \$360 million per year.

Even when their dangerous presence has been noted, very limited scientific monitoring has been done. Monitoring is important for producing management strategies to control specific weed species, particularly when budgetary considerations are an issue. Nowadays the devastation that weeds are having on Australia's biodiversity is being taken seriously.

What is a Weed?

Weeds are plants that:

- can colonise quickly and aggressively
- occur in our gardens without being put there
- are harmful to livestock
- are poisonous to people
- are aesthetically unattractive
- compete with food crops for growth
- are excessively aggressive and competitive in the garden
- grow naturally
- are introduced or escape, and have naturalised into natural ecosystems.