

**Media release: BGANZ and CHABG announce development of a national living collections database of Myrtle Rust-susceptible plant species****1 September 2022**

Myrtle Rust, a highly invasive plant disease caused by the introduced fungal pathogen *Austropuccinia psidii*, poses a serious and urgent threat to Australia's native biodiversity. Arriving in Australia in 2010, the fungus spread rapidly throughout the east coast of Australia and east to New Zealand. It has recently been found in Western Australia. Myrtle Rust affects plant species in the family Myrtaceae, which includes iconic Australian species such as paperbarks, tea-trees, eucalypts, guavas and lillipillies. These are key and often dominant species in many Australian ecosystems. To date the fungus has proved capable of infecting around 400 native species and this number is likely to grow. Serious declines towards extinction are underway in some species, and broader ecological consequences are expected. The Australian Government recognises Myrtle Rust as a key threat to Australia's threatened species.

The disease is spread mostly via wind, but the thousands of spores can also be spread via wildlife, infected plant material, contaminated equipment, clothing and vehicles. The disease can cause deformed leaves, heavy defoliation of branches, reduced fertility, dieback, stunted growth and plant death. Widescale management of Myrtle Rust in the natural environment is untenable, particularly when considering the rate and mode of spread of fungal spores. Furthermore, the significant resources needed to manually treat infected populations to ameliorate fungal infection at scale makes this approach completely unrealistic within current knowledge and resources.

Ex situ (off site) collections of species in botanic gardens, arboreta, their nurseries and seed banks present much smaller numbers of individuals than would normally be found in healthy, functioning populations in the wild (in situ). These ex situ insurance populations can provide some level of hope for maintaining a species existence at the collection level, particularly when in situ populations are unable to reproduce due to infection. While ex situ collections usually require an intensive level of management to maintain their health, they also present opportunities for regular monitoring to potentially identify the early signs of infection and improve interventions with timely application of fungicidal treatments. With current advances in genetic tools, it is also possible to cost-effectively assess genetic variability in the ex situ collections and manage them to ensure we have the best chance of maintaining viable populations.

Biosecurity funding from the Australian Government's Department of Climate Change, Energy, the Environment and Water ([DCCEEW](#)) is supporting the Council of Heads of Australian Botanic Gardens ([CHABG](#)) and Botanic Gardens Australia and New Zealand (BGANZ) to develop a national living collections database of Myrtle Rust-susceptible plant species. The stocktake will be performed through a survey that will be open to those across the BGANZ network and beyond with species from the family Myrtaceae in their collections. This will ascertain which species are held in collections across seed banks, botanic gardens, arboreta and their nurseries.

Denise Ora, the Chair of CHABG, commented that 'It is critically important that Australia's ex situ conservation facilities continue to work together to share information, resources and plant material. Doing so will give us the very best chance of combatting the threat of Myrtle Rust to Australia's native Myrtaceae.' This sentiment is shared by Chris Russell, the Interim Chair of BGANZ, who says 'BGANZ works closely with botanic gardens right across the country in both capital cities and regional areas. Working with CHABG to deliver this survey means our members can tap into additional expertise and experience of others managing collections in response to the Myrtle Rust threat. We look forward to seeing the data generated through this work supporting further Australian Myrtaceae collaborations across our network for many years to come.'

CHABG and BGANZ released the [Myrtle Rust Survey](#) on 11 August and will promote it at the [7th Global Botanic Gardens Congress](#) in Melbourne in September 2022. The survey closes on 31 October 2022. Data from the survey will be used to inform future prioritisation, research and conservation actions for Myrtle Rust-affected species.

The survey results will be released at the end of 2022 and will be made freely available to BGANZ members and the public. The information collected through this survey will enable botanic gardens, arboreta, nurseries, seed banks and researchers to utilise this data in strategically planning and managing their collections as well as supporting further research. The survey results will also be shared with governments, business and the philanthropic sectors so that policy makers and funding bodies have additional information to assist in the prioritisation of future resources.

### **Who is BGANZ?**

Botanic Gardens Australia and New Zealand Limited (BGANZ) is a network of more than 130 botanic gardens. It is a not-for-profit peak industry body formed to build and maintain links with relevant national and international bodies. It promotes collaboration of those who share a passion for

contributing to a greener world and enhances the state of botanic gardens for the benefit of the community. BGANZ also advocates for plant conservation, fostering of plant species and social and cultural heritage programs. More at [www.bganz.org.au](http://www.bganz.org.au)

**Who is CHABG?**

The Council of Heads of Australian Botanic Gardens Incorporated (CHABG) is a not-for-profit organisation dedicated to supporting the protection, conservation and enhancement of Australian plants and their ecosystems. Australia's major, capital city botanic gardens operate as independent institutions within the national collaborative framework of CHABG. More at [www.chabg.org.au](http://www.chabg.org.au)

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