ABS-00010

Escarpment horticulture and its role in conservation

A.M. Downie

Royal Botanic Gardens Victoria, Melbourne, Victoria, Australia

Corresponding author email: amy.downie@rbg.vic.gov.au

Keywords: abseiling, cliff-dwelling plant species, conservation, escarpment, erosion, stewardship

Located on a steep, rocky escarpment, the Grey Garden embankment is a unique site at Royal Botanic Gardens Melbourne (RBGM). The site hosts a diverse range of cliff-dwelling plants and many species with high conservation value. This is an exceptional site, and unlike other areas within the Melbourne Gardens, it requires procedures like abseiling to manage and work with plants at heights on an exposed escarpment. In 2022, I initiated a trial planting of endangered and threatened species on the escarpment to evaluate their suitability to the environment and our ability to provide adequate maintenance for them. The species trialled included *Encephalartos cerinus* - a critically endangered South African species; *Dudleya brittonii* - an endangered species from Mexico; and a locally vulnerable species *Westringia cremnophila*. All species have shown positive results and adaptability to the site. The habitat of *Encephalartos cerinus* is described as 'rocky river gorge or on sheer sandstone cliffs' - similar conditions to our site, and given the favourable growth shown, RBGM commenced a stewardship program in 2023 partnering with the Global Consortium for Cycad Conservation to protect and share the species into the future. Part of our commitment to this garden site and ensuring the plants continue to flourish has been learning unorthodox horticultural skills such as abseiling, exposed site assessment, and safe working at heights training. Learning to navigate the escarpment using climbing equipment were necessary, but fun skills to acquire, as well as rethinking and adapting planting skills with new tools and managing site challenges to better understand the geology and the importance of erosion control and plant establishment.