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News from the Australian Seed Bank Partnership

The Rare Bloom Project: A partnership approach to conserving Australian wildflowers

BRADLEY DESMOND

Australian Seed Bank Partnership Corresponding author: coordinator@seedpartnership.org.au

The Australian Seed Bank Partnership (ASBP) is a collaboration of seed banks and flora-focused organisations delivering strategic conservation actions for Australia's native plants. We contribute to the protection of Australia's native plant diversity through sustainable seed and germplasm collecting, banking and use, research, and knowledge sharing. With seed banking partners in every state and territory, the partnership is a key driver of plant conservation effort across the country.

During the summer of 2019–20, Australia experienced an unprecedented series of bushfires, causing extensive damage to the natural environment. The fires burned almost 10 million hectares of land, including peatlands, rainforests, and alpine habitats, with many of the most adversely impacted areas having never experienced fires of such intensity. In response to this event, WWF-Australia

and Botanica by Air Wick partnered to create The Rare Bloom Project™. This three-year initiative, in collaboration with the Australian Seed Bank Partnership, aimed to complete a comprehensive national program to support the conservation of 120 Australian wildflowers.

At its core, The Rare Bloom Project™ sought to undertake a nationwide program of seed collection, germination trials, propagation, reintroductions, and long-term seed banking. To realise these objectives, the project relied on the collaborative network and expertise of the Partnership, leveraging partnerships with eight ASBP partners spanning seven states and territories. Our alliance facilitated data collection and conservation activities on a national scale, ensuring the project's reach and impact extended across diverse ecosystems and geographical regions.



Australian PlantBank staff collecting seed from the Pink Flannel Flower (Actinotus forsythii) in the Blue Mountains. Image: Gavin Phillips

In the projects' initial stages, teams of researchers, conservationists, and volunteers were mobilised to conduct reconnaissance missions aimed at assessing the impact of the fires on seed availability and species recovery. These assessments provided critical insights into post-fire vegetation dynamics, guiding targeted seed collection efforts and conservation priorities. Seed collections were then made to ensure the genetic diversity of native species was secured in long-term seed banks, while germination trials of collected material provided valuable insights into propagation techniques. Germinants were also cultivated in living collections at botanic gardens, and planted as part of translocations into protected areas. Living collections and translocated plants provide important insurance populations should the wild plants be impacted by future environmental threats.

Despite encountering challenges such as adverse weather conditions, germplasm availability issues, and disruptions caused by the COVID-19 pandemic, we exceeded initial expectations. The project surpassed all targets, securing germplasm collections for 153 species, conducting germination trials for 66 species, surveying 14 species, and propagating 11 species for conservation. In total, the project provided conservation support for an impressive 183 species, making a substantial contribution to *ex situ* plant conservation in Australia.

Supplementary funding was raised for the project through a Sydney pop-up boutique titled 'The Rare Bloom Florist'. The pop-up raised \$2,500 through the sale of species-themed art, which then funded a Student Research Scholarship aiming to advance our understanding of seed aging. Additionally, Woolworths generously provided funding that allowed for targeted conservation actions for three threatened species, including the endangered Corunna Daisy, Bussell's Spider Orchid and Omeo Storksbill, enriching the project's conservation impact and reaching broader conservation goals.

In a significant stride towards inclusivity and comprehensive biodiversity conservation, the Rare Bloom Project ventured into the heart of the Northern Territory to incorporate the unique flora of Uluru-Kata Tjuta National Park. This endeavour, led by the National Seed Bank (NSB), not only marked a pivotal moment for the project but also laid the foundation for meaningful collaboration with Anangu Traditional Owners. Together Anangu and the NSB secured seed from 25 plant species ensuring that the conservation efforts were undertaken in a manner that respected and acknowledged the rich cultural heritage of the land. The collaboration not only facilitated seed collection but also became a platform for two-way learning, fostering relationships that extend beyond the project's scope. This collaborative approach has laid the groundwork for additional plant conservation projects and knowledge exchange initiatives.



The endangered Omeo Storksbill (*Pelargonium* sp. Striatellum (G.W.Carr 10345)) was a focus of Woolworths funding. Image: Bradley Desmond

The project also served as a platform for public awareness and education. Through communication activities, including educational videos, social media engagement, and planting days, the project fostered a better understanding of the critical role of *ex situ* conservation in responding to environmental threats. The success of the project underscores the importance of collaboration, adaptability and public engagement in safeguarding Australia's diverse native flora.

The Rare Bloom Project™ came to an end in late 2023, however its legacy endures as a model for collaborative conservation efforts. Beyond its outcomes, this project underscores the resilience and adaptability required in the face of environmental challenges. As we reflect at the project's end, this work stands as a testament to the power of partnership, the importance of proactive conservation and the collective responsibility we bear in safeguarding the rich tapestry of Australia's native plant heritage for generations to come.