

## Reversal of species extinction by Sri Lankan Botanic Gardens

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Biodiversity important for the health of global ecosystems and human well-being is however, increasingly challenged with the risk of extinction globally due to habitat destruction, over-exploitation, climate change, and environmental pollution. Conservationists apply a suite of *ex situ* conservation techniques to safeguard the threatened plant species from impending extinction. Botanical gardens world over counteract extinction through species recovery, reintroduction and translocation. This review analyses the National Botanical Survey Project (NBSP) conducted by the National Herbarium, Peradeniya, Sri Lanka (PDA) and the Royal Botanic Gardens, Peradeniya (RBGP), which highlights the present status and the contribution towards *ex situ* conservation of Sri Lankan flora. The National Red Lists 2012 and 2020 are comprehensive compilations of Sri Lankan flora through the main technical contribution of the PDA. The 2012 book led to a comprehensive digital database on plants of Sri Lanka at PDA followed by the 2020 evaluation that scientifically re-visited the lists of flowering plants (Angiosperm) and Ferns and Lycophytes (Pteridophyte). The extinction risk of species revealed through Red lists paved the way to successful explorations of NBSP in the collection of material to enrich the living collections, furthering the *ex situ* conservation actions by the RBGP, throughout a period of over 11 years by a total of 1434 plants being collected from 129 field visits of which, 159 taxa of 70 families successfully conserved. Out of the total, 46 threatened species were conserved *ex situ* including 8 Critically Endangered (CR), 7 Endangered (EN) and 31 Vulnerable (VU). This includes some of the species conserved effectively through National Development projects; e.g., the Central expressway project led to the conservation of *Crudia zeylanica*, a species listed EX in 2012, recovered from the threat of extinction while being downgraded as a Critically Endangered (CR) species in the 2020 National Red List. This indicates NBSP benefits the National Red List in return.