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Science Division Brochure 2009

Flora Conservation and Herbarium Program

For more information contact:

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Scope

Applied flora conservation research seeks to understand the factors and processes that are critical for the conservation of Western Australia's native plant diversity. Major objectives include ensuring the persistence of rare and threatened species, ameliorating key threats such as *Phytophthora* dieback and weeds, and improving understanding of genetic and ecological factors that are vital for the long-term viability of plant species. This research is aligned to the information needs of the Department of Environment and Conservation (DEC). Strong collaborative linkages exist with universities, cooperative research centres, CSIRO and other research institutions and the corporate sector.



What we do

- Collect and store seeds of rare and threatened species, research seed biology, and ensure appropriate germplasm is available for threatened plant re-introductions.
- Research the biology, ecology and genetics of Western Australian flora, focusing on key factors critical for the persistence and viability of plant populations.
- Discover ways to ameliorate the effects of habitat fragmentation and other threatening processes such as *Phytophthora* dieback and weeds.
- Research the impact of climate change on rare and threatened flora and key species predicted to be under threat given current climate change scenarios.
- Carry out translocations to create viable populations of Critically Endangered plants.
- Monitor the health and condition of populations of rare and threatened plants and key species in Threatened Ecological Communities.
- Assess the conservation status of rare and threatened species and make recommendations for the listing and de-listing of Declared Rare Flora to the Western Australian Threatened Species Scientific Committee.
- Communicate knowledge.
- Work collaboratively with land managers and others involved with the conservation of Western Australia's flora to ensure that management practices are sustainable and based on the bestavailable knowledge.



Current key activities and projects

- Assessing the genetic and ecological viability of plant populations in remnant vegetation.
- Determining the population ecology of Critically Endangered flora.
- Developing integrated strategies for the control of Phytophthora cinnamomi using phosphite.
- Assessing the susceptibility of rare and endangered flora to Phytophthora.
- Undertaking experimental translocations of Critically Endangered plants.
- Researching seed biology, seedbank dynamics and collection and storage of seed of rare and threatened Western Australian taxa.
- Studying genetics and biosystematics for the conservation, circumscription and management of Western Australian flora.
- Assessing the impact of climate change on key plant species.







Flora Conservation Program staff are based at three locations in the Perth metropolitan area; the Woodvale and Kensington research centres and the Western Australian Herbarium.