

Progress Report SP 2001-004

Translocation of critically endangered plants

Plant Science and Herbarium

Project Core Team

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Project Team	granted
Program Leader	granted
Directorate	granted

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Context

The contribution of translocations (augmentation, re-introductions, introductions) of threatened flora to the successful recovery of species requires development of best-practice techniques and a clear understanding of how to assess and predict translocation success.

Aims

- Develop appropriate translocation techniques for a range of Critically Endangered and other Threatened flora considered a priority for translocation.
- Develop detailed protocols for assessing and predicting translocation success.
- Establish a translocation database for all threatened plant translocations in Western Australia.

Progress

- Infill planting was completed for translocations of two Critically Endangered plant species at two sites.
- Monitoring was undertaken for 44 sites of 31 taxa translocated in previous years.
- Detailed demographic monitoring was undertaken for *Acacia cochlocarpa* subsp. *cochlocarpa* at translocation and natural sites, and demographic monitoring will be used to develop a Population Viability Analysis (PVA) model for this subspecies.
- Drafting of two publications on flora translocation methods and success criteria continued.
- Assisted Departmental District and Regional staff plan and implement a range of flora translocations.
- Provided advice to Departmental staff on flora translocations proposals submitted for approval.
- Seed collections for mating system studies were completed for two translocated populations of *Banksia brownii*.
- A National Environmental Science Program (NESP) Threatened Species Hub project on plant translocations was established with a significant component of the research based in Western Australia with the Department.

Management implications

- Translocations lead to the improved conservation status for threatened flora, particularly Critically Endangered plant taxa.
- The improved awareness of best-practice translocation methods for Parks and Wildlife staff and community members undertaking such work, leads to greater translocation success.
- Further development of success criteria and methods for analysing long-term success, such as the use of PVA, mating system analysis and genetic variability analysis, will ensure completion criteria are adequately addressed and that resources can be confidently re-allocated to new translocation projects.
- Ongoing monitoring of translocations is providing information on the success of methods used and the probability of long-term success. Close collaboration with District and Regional staff enables this information to be used immediately to inform other flora translocation projects.

Future directions

- Continue the planting of experimental translocations of Critically Endangered and other Threatened flora where further translocations are deemed necessary.
- Continued monitoring of flora translocations and further development of criteria for evaluating success, such as PVA, mating system and genetic variability analysis.

- Complete a review on translocation outcomes and success in Western Australia.
- Publish paper on translocation methods.
- Publish paper *Lambertia orbifolia* PVA study
- Continue data collection for development of a PVA model for translocated and natural populations of *A. cochlocarpa* subsp. *cochlocarpa*.
- Continue collaboration with the NESP Threatened Species Hub on threatened flora translocation research.