

Progress Report SP 2011-010

Plant species richness and endemism within the south-western Australian Floristic Region

Biogeography

Project Core Team

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Project Team	granted
Program Leader	granted
Directorate	granted

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Context

The current departmental reserve acquisition and natural resource management process uses a range of inputs to help identify high priority areas with significant biodiversity values. Biodiversity indices such as species endemism and richness provide a valuable tool in this process. The department currently uses IBRA bioregional boundaries in a range of administrative and analytical contexts; however, IBRA boundaries have been identified as having a number of shortcomings when used to represent floristic diversity in Western Australia. A more ecologically appropriate set of boundaries is desirable.

Aims

- Generate and explore patterns of plant species richness and endemism at a range of scales for the whole flora of the south-western Australian Floristic Region (SWAFR) using locality records for specimens in the Western Australian Herbarium.
- Test for the effect of sample bias on these patterns.
- Develop a new phytogeographic map based on patterns of species richness and endemism.

Progress

- Draft manuscript has been submitted for internal review.

Management implications

A floristically based regionalisation of the south-west will enable conservation planning to be based on ecologically meaningful boundaries that are founded on patterns of species richness and endemism.

Future directions

- Submit manuscript for publication