

Progress Report SP 2012-005

Western Australian flora surveys

Biogeography

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Project Team	granted
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Context

Flora surveys of targeted areas provide knowledge of vegetation pattern and structure for conservation management. These surveys are undertaken for a variety of purposes and for, or in collaboration with, a number of partner organisations.

Current projects include:

- AusPlots Rangeland survey sites as a baseline for long-term surveillance monitoring in collaboration with the Terrestrial Ecosystems Research Network (TERN). This AusPlots Western Australian campaign will focused on rangeland bioregions including the South West Australia Transitional Transect (SWATT) in the Great Western Woodlands.
- Flora survey of the Katjarra (Carnarvon Range) Indigenous Protected Area (IPA) in collaboration with the Birriliburu Native Title Claimants to aid future management. Survey campaign funded by Central Desert Native Title Services and undertaken in collaboration with Birriliburu Rangers and Bush Heritage Australia.
- Floristic survey and mapping of the halophyte-dominated communities of the Fortescue Marsh.
- Capture of vegetation mapping data for the Great Western Woodlands, Indian Ocean Drive and central Pilbara to inform natural resource management and land use planning.
- Black spot flora survey of the Peterswald 1:100,000 map sheet, funded by Federal the Environment.
- Study of the impacts of weeds and grazing following prescribed fire in a Banksia woodland.
- Resurvey of threatened claypan communities on the Swan Coastal Plain documenting change over 20 years.
- Floristic survey of the mound springs and surrounding vegetation communities of Mandora Marsh / Waylarta in collaboration with the West Kimberley District.
- Floristic survey of the coastal wetlands of the Jurien area.

Aims

- To undertake smaller scale surveys for particular purposes (e.g. NatureBank; Bush Blitz surveys ; Black Spot surveys ; AusPlots establishment; assistance to Traditional Owners to survey high conservation IPAs). These short duration surveys are primarily aimed at providing specific management advice, monitor long term change in vegetation at specific sites or in specific communities, or to fill specific data gaps.

Progress

- Flora survey report of Peterswald has been finalised.
- Flora survey of Colville has been completed, plant identifications are continuing.
- Paper on impacts of fire in urban remnant has been published.
- Claypan dataset has been compiled, analysis is continuing.
- Floristic communities have been described for the Fortescue Marsh, and mapping of halophyte-dominated communities is currently underway.
- Flora survey of Mandora Marsh / Walyarta has been finalised and a draft report prepared for the West Kimberley Region.
- Jurien coastal wetlands survey completed, preparation of scientific paper underway.
- Vegetation map reconciliation continued with the digital capture of over 360,000 ha of mapping in the central Hamersley Range between Munjina and Weelumurra.
- A Pilbara AusPlots campaign collaboratively funded by Pilbara Corridors - Rangelands NRM, AusPlots and Parks and Wildlife established 19 plots in the Fortescue catchment between Millstream Chichester and Karijini National Parks.

Management implications

- The survey of the Colville area will increase the known flora in this area. Data will be made available via NatureMap and Western Australian Herbarium database. This will provide information on the flora values of the area and assist in land use planning and impact assessments for future resource development.
- Fire study will inform weed management following fire in long unburnt urban remnants.
- Analysis of the claypan data will provide information on the temporal variation in these nationally threatened communities, and develop methods to assess ecosystem health.
- Survey of Mandora Marsh / Walyarta and the Fortescue Marsh will provide information for draft management plans for existing and proposed reserves in the southern Kimberley and Pilbara.
- The Jurien coastal survey will provide information on wetland flora values to assist in land use planning and impact assessments for mining and water resource developments.
- The digital capture and reconciliation of vegetation maps will inform environmental impact assessment processes associated with native Vegetation Clearing permits and major resource development proposals. This information will also enable fire management planning, particularly the development of burning prescriptions for Karijini National Park.

Future directions

- Further surveys will be undertaken as required and when resources become available. The development of collaborative arrangements to facilitate future surveys is underway and involves discussions with Traditional Owners, natural resource managers, resource developers and both government and private sector managers of land and biodiversity assets. Another Pilbara AusPlots campaign is planned for 2016 and resources may also be forthcoming to expand this survey effort into the Kimberley and onto the Swan Coastal Plain. Additional AusPlots will also be established along the SWATT in 2016.