Understanding the implications of a drying climate on forest ecosystem function to inform and improve climate change adaptation

Ecosystem Science

Project Core Team

Supervising Scientist	Katinka Ruthrof
Data Custodian	Katinka Ruthrof
Site Custodian	

Project status as of Feb. 4, 2020, 1:27 p.m.

New project, pending concept plan approval

Document endorsements and approvals as of Feb. 4, 2020, 1:27 p.m.

Project Team	granted
Program Leader	granted
Directorate	required

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Biodiversity and Conservation Science Program

Ecosystem Science

Departmental Service

Service 8: Implementation of the Forest Management Plan

Aims

The aim of this project is to understand the implications of a drying climate on forest function, biodiversity and health to inform adaptation and mitigation.

Expected outcome

The expected outcome is a clearer understanding of the responses of forest ecosystems to climate change in terms of structure, composition and functioning, and management intervention (such as prescribed burning). For example, this information will allow us to explore mitigation of large-scale forest declines due to climate change, if possible, through management intervention in the future. Outputs will include: journal papers, conference presentations, summary bulletins for stakeholders and the wider community, and other outreach materials as required, or as opportunities arise.

Strategic context

The project aligns with KPI's from the Mid-Term Review of the Forest Management Plan. Furthermore, it aligns with the Science Strategic Plan; Theme: *Impacts of climate change on biodiversity and ecosystem function*. The Strategic Goal (reiterated in the Ecosystem Science Program Plan 2018-21): *Impacts of climate change on biodiversity are better understood and adaptation strategies are incorporated into conservation management and planning*. The project will contribute to these by understanding the responses of the forest ecosystem to climate change, such as recent declines, to inform mitigation strategies.

Expected collaborations

DBCA: Forest Management Branch, remote sensing staff, fire ecologists, foresters. Universities: Forest ecologists, climatologists (Murdoch University).

Proposed period of the project

Sept. 10, 2019 – Dec. 31, 2021

Staff time allocation

Role	Year 1	Year 2	Year 3
Scientist	0.5	0.5	0.5
Technical	0.1	0.1	0.1
Volunteer			
Collaborator	0.01	0.01	0.01

Indicative operating budget

Source	Year 1	Year 2	Year 3
Consolidated Funds (DBCA)	13	8	8
External Funding			