Progress Report SP 2012-029

Long term response of jarrah forest understorey and tree health to fire regimes

Ecosystem Science

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Project status as of Feb. 15, 2018, 8:55 a.m.

Approved and active

Document endorsements and approvals as of Feb. 15, 2018, 8:55 a.m.

Project TeamgrantedProgram LeadergrantedDirectorategranted



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Context

This study is a long term strategic research project to better understand the effects of fire regimes, including prescribed fire, on the floristic composition of jarrah forests. This knowledge is important for developing and implementing ecologically appropriate fire regimes and for managing fire to reduce risk to the community, biodiversity and other environmental values.

Aims

- Understand and quantify the long-term effects of various fire regimes on the floristic composition of jarrah forests.
- Determine the long-term effects of various fire regimes on tree health and growth rate.

Progress

- Fire treatments are now complete and analysis of this very large database has commenced.
- Patterns of plant community response to various fire regimes have been identified.

Management implications

- Further data analysis is required to assess the long term effects of fire on floristic composition and richness, and implications for management. Being one of a few long-term studies of its kind around the world, the findings of this research will be important for guiding fire management policy and planning for community protection and biodiversity conservation.
- Knowledge and understanding gained from this long-term study have been incorporated into a fire ecology training program that is delivered to employees involved in fire management planning and operations.

Future directions

- Prepare, analyse and report on data collected since 1986, and prepare a scientific paper for publication.
- Implement technology transfer program through formal and informal presentations and publications.