

# Wildfire risk, biodiversity and peri-urban planning in the Mt Lofty Ranges, South Australia



D.K. Bardsley<sup>a,\*</sup>, D. Weber<sup>b</sup>, G.M. Robinson<sup>a</sup>, E. Moskwa<sup>c</sup>, A.M. Bardsley<sup>a</sup>

<sup>a</sup> *Geography, Environment and Population, School of Social Sciences, The University of Adelaide, Adelaide, South Australia 5005 Australia*

<sup>b</sup> *School of Natural and Built Environments and the Barbara Hardy Institute, The University of South Australia, Mawson Lakes Campus, 5095, Australia*

<sup>c</sup> *School of Natural and Built Environments, University of South Australia, Mawson Lakes, South Australia 5095, Australia*

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## ABSTRACT

Major fires on the periphery of Australian cities are reframing perceptions of what constitutes effective landscape planning and vegetation management. The emerging governance challenge to simultaneously mitigate wildfire risk and support improved conservation practices is reviewed in the context of pre-colonial and modern cultures within the peri-urban Mediterranean climatic region of South Australia's Mt Lofty Ranges. The analysis suggests that anthropogenic burning of landscape has been a vital historical component of risk management. During the early modern era however, improved capacities to manage wildfire risk led to complacency in light of the hazard, which in turn has led to urbanization that has not sufficiently accounted for the levels of risk. A planning conflict is emerging within the wooded uplands as there is renewed interest in wildfire risk, which is reflected in new state policies providing greater allowances for land owners to clear vegetation around dwellings. Although attempts have been made to constrain urban growth around the city of Adelaide, recent workshops with key environmental management stakeholders suggest that urbanization continues within the Mt Lofty Ranges in areas that are both highly vulnerable to fire and of great importance for biodiversity conservation, such that planning is not reflecting the cultures of risk or biodiversity value. For such risks and values to be taken into account within reflexive systems of governance, the narratives on opportunities for adaptation generated by the people who facilitate vegetation management must be accommodated into deliberations on policy. The identification and planning of particularly vulnerable and valuable spaces within the broader landscape and cultural contexts of risk and value would enable complex, targeted responses to environmental hazards, conservation and development needs in the peri-urban uplands.

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## 1. Introduction

Recent major fires on the peripheries of Australian cities are changing the way vegetation is managed in the mountain ranges fringing urban areas. Communities living in wooded upland landscapes such as the Mt Lofty Ranges (35°S, 138.7°E) of South Australia (SA) experience regular destructive wildfires, or bushfires, that cause property damage and in some cases, loss of life (CFS 2015). Most recently, the Sampson Flat fire burnt approximately 125 square kilometers and 27 homes in January 2015 (Fig. 1) (Rice &

Robertson, 2015). With such major risk to property, people and landscapes, there are ongoing conflicts between urban development within upland areas of high wildfire risk and vegetation management for positive conservation outcomes. By critically reviewing the historical and contemporary management of vegetation, we outline the challenge of responding to contrasting management objectives in relation to the cultural interpretations of wildfire risk and landscape values in the Mt Lofty Ranges. To achieve this, workshops were undertaken with key governance stakeholders of native vegetation in the region to guide a contemporary evaluation of wildfire risk management. The narratives on value and risk within the peri-urban space are used to generate arguments for the need for greater reflexivity of policy to respond to changing perceptions and management goals for vegetation in peri-urban areas.

\* Corresponding author.

E-mail addresses: [douglas.bardsley@adelaide.edu.au](mailto:douglas.bardsley@adelaide.edu.au) (D.K. Bardsley), [delene.weber@unisa.edu.au](mailto:delene.weber@unisa.edu.au) (D. Weber), [gmsr@gmail.com](mailto:gmsr@gmail.com) (G.M. Robinson), [emily.moskwa@unisa.edu.au](mailto:emily.moskwa@unisa.edu.au) (E. Moskwa), [annette.bardsley@adelaide.edu.au](mailto:annette.bardsley@adelaide.edu.au) (A.M. Bardsley).

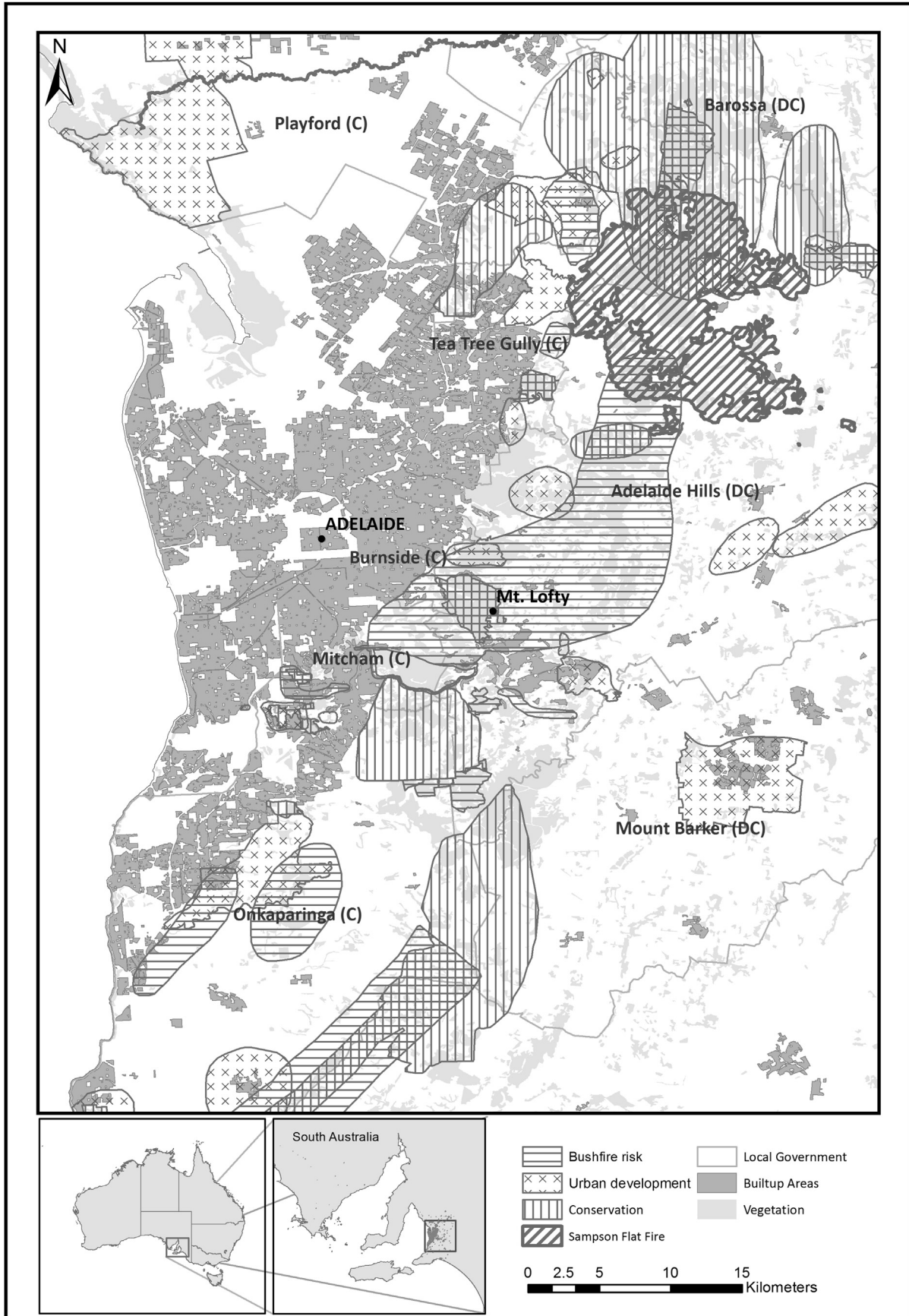


Fig. 1. Important areas of biodiversity conservation, urban development and bushfire risk in the Adelaide-Mt Lofty Ranges region as identified in key stakeholder workshops.

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