

Wildfire Risk and Biodiversity Management: Understanding Perceptions and Preparedness

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Abstract : Management strategies to reduce the risks to human life and property from wildfire are key contemporary concerns, with a growing literature exploring these issues from a social research perspective. Efforts range from narrowly focused examinations, such as comparing the level of community support for vegetation clearance with that of controlled burning, to broader considerations of what constitutes effective fire management policy and education campaigns. However, little analysis is available that integrates the social component of risk mitigation and the influence of educational materials with the biodiversity conservation strategies so often needed in fire-prone ecosystems found on the periphery of urban areas. Indeed many communities living on the fringe of Australian cities face major issues relating to an increased risk of wildfire events and a decline in local biodiversity. Inadequate policy and planning, and a lack of awareness or information, exacerbate this risk. This has brought forward an emerging governance challenge that requires the mitigation of wildfire risk while simultaneously supporting improved conservation practices in these urban-fringe areas. Focusing on the perceptions and experiences of residents of the Lower Eyre Peninsula in South Australia, this study analyses data collected from a series of semi-structured interviews with landholders (n=20) living in rural and urban-fringe areas surrounding the city of Port Lincoln, a city with a growing population and one that has faced a number of very large fires in recent years. In South Australia, new policies have assigned increased responsibility on individual landholders to manage their land and prepare themselves for a wildfire event, potentially to the detriment of the surrounding native vegetation. Our findings indicate the value of gaining a more nuanced understanding of the perceptions and behaviours of landholders living in areas of high fire risk, who often choose to live there in order to be close to the natural environment. Many interviewees demonstrated a high awareness of wildfire risk as a result of their past experience with fire, and the majority considered themselves to be well-prepared in the event of a future fire. Community interactions and educational programs were found to be effective in raising awareness of risk; however, negative trust relationships with government authorities and low exposure to information concerning biodiversity resulted in an overall misunderstanding of the relationship between risk mitigation and biodiversity protection. The study offers insights into how catastrophic fires are reframing perceptions of what constitutes effective vegetation management. It provides recommendations to assist with the development of education strategies that concurrently address wildfire management and biodiversity conservation, and contribute towards environmentally-informed and risk conscious governance.

Keywords : biodiversity conservation, risk, peri-urban planning, wildfire management

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