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Editors

Fire in Tropical Savannas

The Kapalga Experiment

With 62 Illustrations



Springer

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*This book is a tribute to Michael Ridpath's
vision in establishing Kapalga as a dedicated
research site*

and

*To Brian Walker's scientific leadership and
unstinting support throughout the fire experiment.*

Preface

Fire is a major agent of disturbance in many biomes of the world but is a particularly important feature of tropical savannas. Up to 50% of the extensive tropical savanna landscapes of northern Australia are burnt each year. This includes prestigious conservation reserves such as World Heritage—listed Kakadu National Park, in the Top End of the Northern Territory. As in other savanna regions of the world, the responses of biota to different fire regimes are poorly understood, such that fire management represents one of the greatest challenges to conservation managers and researchers alike. This is the context within which a landscape-scale fire experiment was established at Kapalga Research Station in Kakadu, which aimed to provide a sound scientific basis for conservation management in the region. The experiment was established by The Australian Commonwealth Scientific and Industrial Research Organization (CSIRO), but involved collaborators from a range of universities and government agencies, including the managers of Kakadu, the Australian Nature Conservation Agency (ANCA: now Parks Australia North).

This book summarizes the findings from the Kapalga fire experiment and explores the implications for conservation management. We believe that Kapalga has provided important insights into the fire ecology of tropical savannas and has broad relevance for the conservation management of fire-prone landscapes in general. This book should be of interest to researchers, graduate students, and land management agencies.

We are extremely grateful to all our collaborators, both inside and outside CSIRO, for their involvement in the Kapalga experiment. We particularly acknowledge the primary roles of Pat Werner and Dick Braithwaite in the design and establishment of the experiment. We thank Parks Australia staff for their support, especially senior managers Peter Wellings and Tony Press, traditional Aboriginal owners Victor Cooper and the late Mick Alderson, and Rangers Grant Matson, Ollie Scheibe and Margie Rawlinson. Dave Bowman, Ross Bradstock, Malcolm Gill, Richard Marchant, and John Woinarski critically reviewed chapters of the book. Finally, this book is dedicated to all the CSIRO technical staff who made the Kapalga experiment happen, particularly Kapalga managers Peter Panquee, Darryl Murphy and Robert Eager, fire managers Peter Brady and Mick Gill, and technical assistants Jack Cusack, Mick Greatz, Tony Hertog, Lyn Lowe, Judy McCutcheon, Ivan McManus, and Gus Wanganeen. Special thanks also to Barbie McKaige, who was part of the fire crew and helped assemble photographs for the book, and to Lesley Dias, who helped track down elusive citation details.

Alan N. Andersen
Garry D. Cook
Richard J. Williams

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