

RESEARCH REPORT



# The Rainforests of Cape York Peninsula

Peter Stanton and David Fell



# Rainforest CRC

Cooperative Research Centre for Tropical Rainforest Ecology and Management



# THE RAINFORESTS OF CAPE YORK PENINSULA

Peter Stanton and David Fell



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This work is dedicated to the memory of Geoff Tracey, a mentor and friend to both authors, who passed away on 30 July 2004.

His passing has given much grief to Peter Stanton, who benefited from Geoff's friendship and outstanding ecological insight for over forty years.



## PREFACE

In their report *The Rainforests of Cape York Peninsula*, Peter Stanton and David Fell have made a substantial contribution to our knowledge of the present extent, diversity, tenure and condition of these forests.

In the context of Australian rainforests this work should be seen as an addition to the Australian National Rainforest Study<sup>1</sup>, which includes the ecological studies *The Status of Monsoon Vineforests in the Northern Territory: a perspective* by Jeremy Russell-Smith and Clyde Dunlop, and also *Rainforests of Western Australia* by Kevin Keneally and John Beard. Stanton and Fell's account of Cape York rainforests fills a major gap in the knowledge of the rainforests across Australia's monsoon tropics. Of special significance is that it has the detail to enable the comparison of Cape York Peninsula rainforests with those of the Northern Territory and the Kimberley region of northern Western Australia on the basis of floristics, structure and habitats.

Megadiverse ecosystems, which we know as rainforests, provide formidable problems for communication. Australian rainforests – temperate, subtropical, tropical, wet/dry – are a complex of life forms and multitude of species that survive in patches in an ancient landscape. How do we discuss them with others or describe and write about them “with a view to increasing awareness of their significance within the general community and to formulating recommendations for their conservation”<sup>1</sup>?

In this account of Cape York Peninsula rainforests Stanton and Fell recognise that typology in rainforests is dictated by need, and approach this first extensive systematic study of rainforests across the whole region by marking their occurrence on aerial photographs. This puts the rainforest patches in the context of the landscape and vegetation cover as well as helping to define the scale of sampling and hence the planning of field trips. The result of their efforts published here is a framework of knowledge which is already being applied in land use and planning, and has obvious relevance to landscape ecology and evolutionary studies.

In spite of the daunting number of Types (72) used to describe the variability of 140 sample sites, the strength of this work lies in the accuracy of the methods used and the exact locations and descriptions of sites. It is also in the details of the floristics, the stratification into various life forms at each site, and confidence in the plant identification is ensured through voucher specimens lodged in the Queensland Herbarium. Both the authors are excellent field botanists, and the unnamed species in the text of their report have been referenced to Queensland Herbarium collections. Several have since been described as new species, often narrowly endemic to various rainforests in Cape York. These forests contain a substantial component of the biodiversity of Cape York Peninsula, and their survival as ecosystems is essential for a sustainable environment in the region.

The implications for conservation and management of landscapes is discussed by Stanton from the perspective of many years of first-hand experience. He points out that in 1992-1994, when this study was done, the Cape York rainforests were – with a couple of notable exceptions, e.g. Bamaga, Iron Range – not greatly affected by European settlement, and there was no imminent threat to their survival. Russell-Smith made similar observations about Northern Territory rainforests. Both also observe that the long-term survival of the thousands of rainforest patches in tropical monsoonal regions of Australia require land planning and management policies, which include reserve and off-reserve conservation of public and private lands.

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<sup>1</sup> Published as 'The Rainforest Legacy' Special Australian Heritage Publication Series No. 7, Vol. 1. 'The nature, distribution and status of rainforest types'.

For Cape York, Stanton comments, "National Parks or other conservation reserves provide a legal basis for action if and when threatening processes and appropriate management actions have been defined". His past surveys in the 1970s, based on designing reserves with as much habitat variation within each land system as possible and with an emphasis on preserving natural plant communities, resulted in the gazettal of some large National Parks of unique quality, e.g. Jardine River catchment.

With the increase in knowledge of Cape York since then, mainly through the Cape York Peninsula Landuse Study (CYPLUS), come more challenges to preserve a sustainable environment within development planning.

In the broader context of preserving the biodiversity of Australia's rainforests it is imperative that an appropriate reserve be designed for the greater part of the McIlwraith Range to extend and amalgamate existing reserves. Often a change from a straight-line boundary to one which includes a complete catchment would ensure survival of some rainforest types and stream catchment protection so vital for ecological sustainability. A National Park proposal with these suggestions was presented to the Queensland Government in 1989 by the Rainforest Conservation Society.

Many of the plants and animals found in the various habitats of the McIlwraith Range are found nowhere south of there but occur in Papua and New Guinea, others link PNG rainforest to those of the Queensland Wet Tropics World Heritage area.

The indigenous people have a belief and value system, which sees them as part of the natural world and has sustained their survival for millennia. They are essential to the process of developing criteria on which land use is planned and implemented in the region. It seems that these days economic development is regarded as essential for all people in Cape York, but this should proceed with sustainability in mind.

Mary E. White, the highly esteemed palaeobotanist and author says in the epilogue to her book *Listen, Our Land is Crying*, which presents a big picture perspective of land use in Australia: "For as long as the aim is to manage and redesign nature in order to keep economic growth going, sustainability is a meaningless concept." This sounds like a timely warning for the future management of the Cape York Peninsula landscapes.

**Geoff Tracey**  
Rainforest Ecologist  
Yungaburra, April 2004



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Many thanks are due to landowners and land managers, who provided permission of access to rainforest survey sites throughout Cape York Peninsula. Fieldwork could not have proceeded without their support.

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The original survey work was funded through the Commonwealth National Rainforest Conservation Program and the Cape York Peninsula Land Use Strategy. The authors subsequently completed the present report in their own time, with assistance from Professor David Gillieson, Ms Jann O'Keefe, Ms Shannon Hogan and Mr Garry Werren of the Cooperative Research Centre for Tropical Rainforest Ecology and Management (Rainforest CRC). Maps were compiled by Professor David Gillieson, with additional spatial data sourced from the Topo250K datasets of Geoscience Australia.

All photographs were taken by Peter Stanton and David Fell except where indicated in Plate captions.

The original manuscript was typed by Mrs Karen Stanton.

We are indebted to Professor Len Webb and Mr Geoff Tracey for use of Webb and Tracey site data. Geoff Tracey kindly prepared the Preface and shared his knowledge and guidance throughout the project.

It is with sadness that we record the passing of Garry Werren on 25 October 2004.



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