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Tangled Visions:

Changing Scientific Understandings of the North Queensland Rainforests, 1770 – 1990

> Thesis submitted by Rachel Louise Sanderson BA (Hons) James Cook University in July 2005

for the degree of Doctor of Philosophy in the School of Humanities James Cook University

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ABSTRACT

Tangled Visions: Changing Scientific Understandings of the North Queensland Rainforests, 1770 – 1990

Science and scientists have played key roles in shaping popular perceptions of the rainforest environment, and their work has directed both the development and preservation of rainforest areas in North Queensland. This thesis examines the broad development of scientific understandings of, and interactions with, the rainforests of North Queensland from the period of early European exploration to the emergence of powerful scientific support for rainforest conservation in the 1980s. The thesis focuses on four distinct but interrelated scientific approaches: taxonomic botany, ecology, palaeoecology and biogeography. In particular, it argues that two shifts in scientific understanding have been of critical importance in re-shaping perceptions of rainforest. The first was the emergence of an ecological view of the rainforests, which saw them not as conglomerations of species, but as complex living systems. The second was the revision of the evolutionary history of Australian rainforests, from the belief that they were an 'alien and invasive' form of vegetation, to the understanding that these forests were of ancient and indigenous origin. Further, this thesis argues that scientists' attempts to understand the rainforest have led them to consider the complex and interconnected environmental and human histories of the region. The thesis explores the way scientific texts can act as historical documents, both because of the evidence they provide about land-use and environmental change, and because of the ways in which they reflect in content and form the changing environmental values and visions of a settler society.

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STATEMENT OF SOURCES

DECLARATION

I declare that this thesis is my own work and has not been submitted in any form for another degree or diploma at any university or other institution of tertiary education. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

Signature

Date

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ABBREVIATIONS

ACF Australian Conservation Foundation

ANZAAS Australian and New Zealand Association for the Advancement of Science

CAFNEC Cairns and Far North Environment Centre

CSIR Council for Scientific and Industrial Research

CSIRO Commonwealth Scientific and Industrial Research Organisation

CT Conservation of Terrestrial Ecosystems Section of the IBP

DSWAG Douglas Shire Wilderness Action Group

IBP International Biological Programme

IUCN International Union for the Conservation of Nature and Natural

Resources

IUPN International Union for the Protection of Nature

NQNCNorth Queensland Naturalists' Club

RCS Rainforest Conservation Society

UNESCO United Nations Educational, Scientific and Cultural Organisation

UNEP United Nations Environment Programme

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