Supporting Protected Area Management

Our vision is to see the rainforests of Australia managed and utilised in a scientifically sound and sustainable manner to yield economic and social benefits to the community, while ensuring conservation of the unique cultural and natural features of the rainforest.



Key Research Outcomes

- Rainforest CRC climate change research supported publication of an article in the journal *Nature* in January 2004, which was rated as one of the top ten international science breakthroughs of 2004 by the journal *Science* (Extinction risk from climate change by Thomas *et al.*, Volume 306, Issue 5704, 2013-2017).
- The Wet Tropics Aboriginal Cultural and Natural Resource Management Plan was developed through a unique partnership between the Rainforest CRC, Aboriginal Traditional Owners and the Wet Tropics Natural Resource Management Board. The first of its kind in Australia, the Plan identifies the aspirations and a range of management and resourcing options for Aboriginal groups within the Wet Tropics World Heritage Area of Australia. The document is a remarkable achievement for Traditional Owners of the Wet

Tropics and provides a blueprint for other regional Natural Resource Management plans in Australia.

 The Catchment to Reef Joint Program with Australia's CRC Reef Research Centre is a collaborative research program that aims to develop new protocols and tools for water quality management and to assess the health of ecosystems within the Wet Tropics and Great Barrier Reef World Heritage Areas - the only World Heritage Areas that lie side-byside. This integrated catchment to reef approach aims to minimise the downstream effects of agriculture and improve the ecosystem health of the Great Barrier Reef lagoon and its feeder catchments. Each project in the joint program will provide the tools needed by landholders, industry and other stakeholders to monitor the effects of land use changes and restoration on water quality.

www.rainforest-crc.jcu.edu.au



Cooperative Research Centre for Tropical Rainforest Ecology and Management



Established and supported under the Australian Cooperative Research Centres Programme

The Cooperative Research Centre for Tropical Rainforest Ecology and Management (abbreviated to Rainforest CRC) was established in 1993 as a research and education partnership and involves twelve core partners including three major universities, Commonwealth and State Government agencies and the tourism industry. A range of world-class experts support an exciting Centre portfolio covering key areas of research including environmental planning and management in tropical landscapes; managing and monitoring impacts arising from rainforest visitation and use; conservation principles and management; evaluating ecosystems goods and services in a dynamic landscape; and involving Indigenous communities in capacity building and collaborative management. Centre research comes under eight broad Program themes, each involving Project personnel and research user representatives with interests in particular research areas.



Resources for Protected Areas

Managing Protected Area Visitation and Use

Visitor Monitoring System for the Wet Tropics World Heritage Area

Rainforest CRC Best Practice Manual

Tourism is vital to Australia's economy. The Wet Tropics World Heritage Area is visited almost five million times per year. Sixty percent of visitors are domestic and international tourists, while the remaining forty percent of visitors are local residents.

There are some two hundred commercial tour operators with permits to operate within the World Heritage Area and over 180 sites being used by visitors, of which 94 sites have associated infrastructure. Visitation to these sites is increasing, requiring appropriate management if visitation is to remain sustainable.

Adopted by the Wet Tropics Management Authority, this visitor monitoring system will ensure that the special values of the Wet Tropics World Heritage Area are protected, conserved, presented and rehabilitated for future generations, and will involve all levels of users, commercial, and free and independent travellers and managers.

This 'gold standard' three-volume best practice manual was developed by Rainforest CRC researchers in collaboration with the tourism industry and protected area management agencies.

Volume 1 – Procedural Manual (ISBN 0 86443 742 0) Volume 2 – Visitor Monitoring Process from

Volume 2 – Visitor Monitoring to Post-Destination Pre-Destination to Post-Destination (ISBN 0 86443 743 9) Volume 3 – <u>Case Studies Biophysical Assessment</u>

(ISBN 0 86443 744 7)



Supporting the sustainable use, management and conservation of Australia's tropical rainforests through world-class research, training and technology transfer.

The Rainforest CRC has produced a number of quality research reports, workshop and conference proceedings and best practice manuals. Hard copies may be obtained by contacting our Headquarters Office. Our publications are also available for download at www.rainforest-crc.jcu. edu.au/publications/ publications.htm.

Impacts of Human Access to Rainforest Areas

Rainforest Dieback: Risks Associated with Roads and Walking Track Access in the Wet Tropics World Heritage Area

Rainforest CRC Research Report

Phytophthora cinnamomi is a funguslike root-rotting pathogen with an extremely broad host range. It is soil-borne and readily spread in soil or by surface or sub-surface water movement. The disease caused by the pathogen in susceptible species can lead to the death of the plant, causing the removal of entire suites of species if many species within each community are susceptible.

When studies revealed that the occurrence of *P. cinnamomi* could be associated with activities such as forest logging and movements of feral pigs, the Rainforest CRC initiated a workshop of specialist researchers for expert guidance and further research, providing a foundation for studies on the occurrence of Phytophthora infection.

This research report discusses ways to manage and minimise the risk of spreading or activating *P. cinnamomi* as a result of human access and associated activity in the Wet Tropics World Heritage Area, and provides a current state of knowledge of the impacts of *P. cinnamomi* in the region.





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