

Tropical rainforests are the most diverse terrestrial ecosystems on earth, rivalled only in complexity by coral reefs. Covering only five percent of the world's total land surface, these rainforests contain 50 percent of all our plant and animal species. Rainforests are our major gene pool, yet these vital ecosystems are fast disappearing. Conservation Director Dr Gerry McSweeney, who went to Australia last year on an Anzac Fellowship, investigates the problems posed by development to Queensland rainforests.

If United Nations figures are accurate and 30 hectares of tropical rainforests are disappearing every minute, I will be unlucky enough to witness the loss of virtually all of them during my lifetime.

In most of the world's poor tropical countries, these forests are being clear felled for crops and living space. Even when areas are not stripped bare, logging often devastates the forest with little hope of recovery except in the very long term — provided surrounding forest remains as a seed source.

Australia is not a poor country. In fact it is the only wealthy industrialised nation with these biologically-rich forests. Sadly, there are many Australians who do not regard the forests as the tremendous assets they are.

Australia is the world's driest inhabited continent. Today only about one thousandth of its total land surface supports tropical rainforest, yet these harbour around 1,100 species of plants, more than a third of Australia's marsupial species, and 60 percent of the country's bat and butterfly species. An immense diversity of plants and animals crowds within the 700,000 hectares of tropical rainforest that remains between Townsville and Cooktown in the far north of Queensland.

A refuge for plants

These tropical rainforests are relics from Australia's past when it used to be part of the great land mass of Gondwanaland. The plants found within them are closely allied to those of India, Malaysia and Fiji. New Zealanders would discover familiar podocarps and kauris scattered through the immense diversity of canopy trees.

Many species date back to the origins of the earth's flowering plants, making Queensland's forests internationally significant as a major centre of survival for such primitive plants. Although they make up only about a thousandth of the area of tropical rainforests worldwide, Queensland's forests contain 13 out of 18 of the world's primitive flowering plant families — the highest concentration on earth.

Spectacular cassowary

One special animal found within these forests also dates back to the Gondwanaland era. The spectacular cassowary is a fruiteating, flightless bird which lives wholly within the rainforests. It is a ratite, the most primitive class of birds on earth, a family which includes kiwi, moa, emu and ostriches. Of all the ratites, the cassowary perhaps most closely resembles many of our moa species because of its preferred rainforest habitat.

Northern Queensland until recently was linked with New Guinea across Torres Strait, where cassowaries also occur. New Guinea shares many of the marsupial mammals found in the North Queensland rainforest, and there has been sufficient time for many of the Queensland marsupials to develop into separate species. Aus-