

Left: Daintree coastline north to Cape Tribulation. Between the fringing coral reef and the 1375 metre summit of Thornton Peak lies the richest terrestrial community in Australasia — wet lowland coastal rainforest. Photo: G. McSweeney

Inset left: Cassowary which inhabit Queensland's tropical lowland rainforest date from ancient Gondwanaland and probably most closely resemble our forest-dwelling moa. Photo Hans and Judy Beste, from Greater Daintree

Inset right: Tropical rainforest, Daintree. Butressed trunks and mat root systems scavenge every available nutrient from the forest floor. Photo Grant Dixon, from Greater Daintree

Fig 1: Present distribution of Australia's tropical rainforests, all of which are considered suitable for nomination as a World Heritage site. From Australian Tropical Rainforest Life, by Clifford and Dawn Frith.

Inset right: A grey satin ash *Cleistocalyx gusavioides* at Downey Creek zoned for logging. Aboriginal people formerly used these trees for shelter. Photo: Greg Borschmann



Australia's two tree kangaroos are found only in the rainforests, as are three species of possum.

Two areas of lowland forest in Queensland have become household names throughout Australia as nationwide efforts have been mounted to save them from logging, roading and clearance: Daintree Forest and Downey Creek. The threats to these two forests are indicative of the threats to all of Australia's remaining tropical rainforests.

Daintree — where reef meets rainforest

Just north of Cairns lies the only coastal rainforest wilderness left in Australia — the 120,000 hectare Daintree Forest. Here is a diversity of landscape and ecosystem unmatched even by New Zealand's very diverse standards. The Great Barrier Reef, largest living structure on earth, comes close to the mainland near Daintree. The mainland coastline is fringed by a spectacular coral reef which is building progressively outwards.

Behind the surf but below high water mark are mangrove forests containing no fewer than 28 different species of mangrove. These merge into Queensland's most diverse tropical rainforest, complex mesophyll vine forest, which only grows on fertile lowland soils and has now largely been cleared for farms. Typically, one finds vines, birds nest ferns, fan palms, strangler figs and a huge diversity

of buttressed canopy trees.

With increasing altitude, lowland forest merges into montane tropical rainforest clothing the mist-shrouded peaks of the 1375-metre high Thornton Peak. This is deluged each year by a rainfall equivalent to that which falls at Franz Josef — 5,000mm (200 inches). Behind the range, rainfall declines rapidly and within 50km the tropical rainforest swiftly gives way to eucalypt forest, and finally the arid bottle tree shrublands of the lower Cape York Peninsula.

Shrubs, not scrub

A re-education programme is underway in New Zealand to persuade people to use the term "shrubland" rather than the derogatory "scrub", thus recognising the great diversity of native plants that "scrub" contains. (A forester recently told me that "shrubs" only grow in suburban gardens!). In Australia it is incredible to find people referring to tall tropical rainforest scattered up Australia's east coast lowlands as "scrub".

Prior to European settlement, Aborigines had pushed back the forests to the wetter lowland and mountain areas with fire. As in New Zealand, when Europeans arrived the diverse forests of the fertile lowlands went first. Timber extraction was followed by complete clearance for sugar cane. The last forests to go have been those of the mountains which contain few timber species and grow on poor soils. Predictably,

these low value montane rainforests form the bulk of the 15 percent of Queensland's tropical rainforests protected within a network of superb but discontinuous national parks.

Last unroaded stretch

The Daintree coastline is the last unroaded stretch of Australia's eastern seaboard. In a spirit reminiscent of the pioneering days, the local Shire Council is pushing a rugged road through the heart of a thin tiny strip of vine forest between mangroves and mountains. The cost is enormous and the environmental damage appalling. The forest is destroyed and sediment from slips on the road — only a four-wheel-drive track — is smothering the fringing coral reefs.

Behind the road come land speculators, carving out rainforest subdivisions for tourists. The forest is also threatened by open-cast tin mining. The Shire Council seems mainly motivated by the national outrage it has caused, while conservative Queensland politicians are using the protest as a rallying point against any outside interference in the state's affairs.

Prolonging mills' demise

At Downey Creek the threat is logging — primarily an attempt to prolong the inevitable demise of the antiquated sawmills which have been cutting far in excess of the sustainable yield of timber. At least