4 The rainforest canopy: A bountiful world

Rainforests are among the most diverse ecosystems on Earth. The equatorial rainforests of Borneo, Central Africa and South America are the richest but the rainforests of New Guinea, where most tree-kangaroo species occur, are not far behind. All of them are certainly more diverse than the drier rainforests of northern Australia – but even those forests are far from impoverished. The rainforests in north Queensland, for example, where Australia's two species of tree-kangaroo live, contain 1380 species of trees and shrubs representing 605 plant genera. This total jumps to 1824 species (representing 855 genera) when vines and epiphytes are included. Compared with the forests of southern Australia or indeed with the temperate forests of the entire continents of Europe and North America, this is huge diversity.

Many of the trees and shrubs and most of the vine and epiphyte species in these north Queensland rainforest are not endemic to Australia but have a broad Malesian distribution (i.e. they also occur in New Guinea, Indonesia, the Philippines, the Malay Peninsula, Thailand and Vietnam). Where they originated, be it the southern super-continent of Gondwana or the northern super-continent of Laurasia, is still a topic of dispute among botanists (there seem to be as many opinions as there are shades of green in the canopy). But