

## 6

# The rainforest canopy: A dangerous world

The botanical richness of the rainforest canopy and the great bounty it offers tree-kangaroos is one aspect of their natural history. But there is no such thing as a free lunch, even for a tree-kangaroo, and rainforests can be very dangerous places. There be dragons? No, not quite, but there be large pythons, which are almost as terrifying, and there be dingoes too. As well, there be *Homo sapiens* and for tree-kangaroos, they are perhaps the most dangerous predator of all.

Although it is extremely unfortunate for the individual animal that is killed by a predator, predation itself is vital to the health of an ecosystem and predators play an important role in regulating the numbers of their prey populations. Mainly they take the old, diseased and infirm but young and naïve animals are also susceptible. In the absence of predators, populations can get out of balance with their resources and increase to the point where they have a harmful effect on their environment. And when populations are overcrowded, disease often takes over as a regulatory mechanism.

The balance between predators and their prey populations is subtle and excessive predation can be just as harmful as none at all. This is particularly evident in many Australian ecosystems where introduced predators have displaced the native ones and radically altered predator–prey relationships. Many native species have been driven to extinction as a result of this imbalance.