

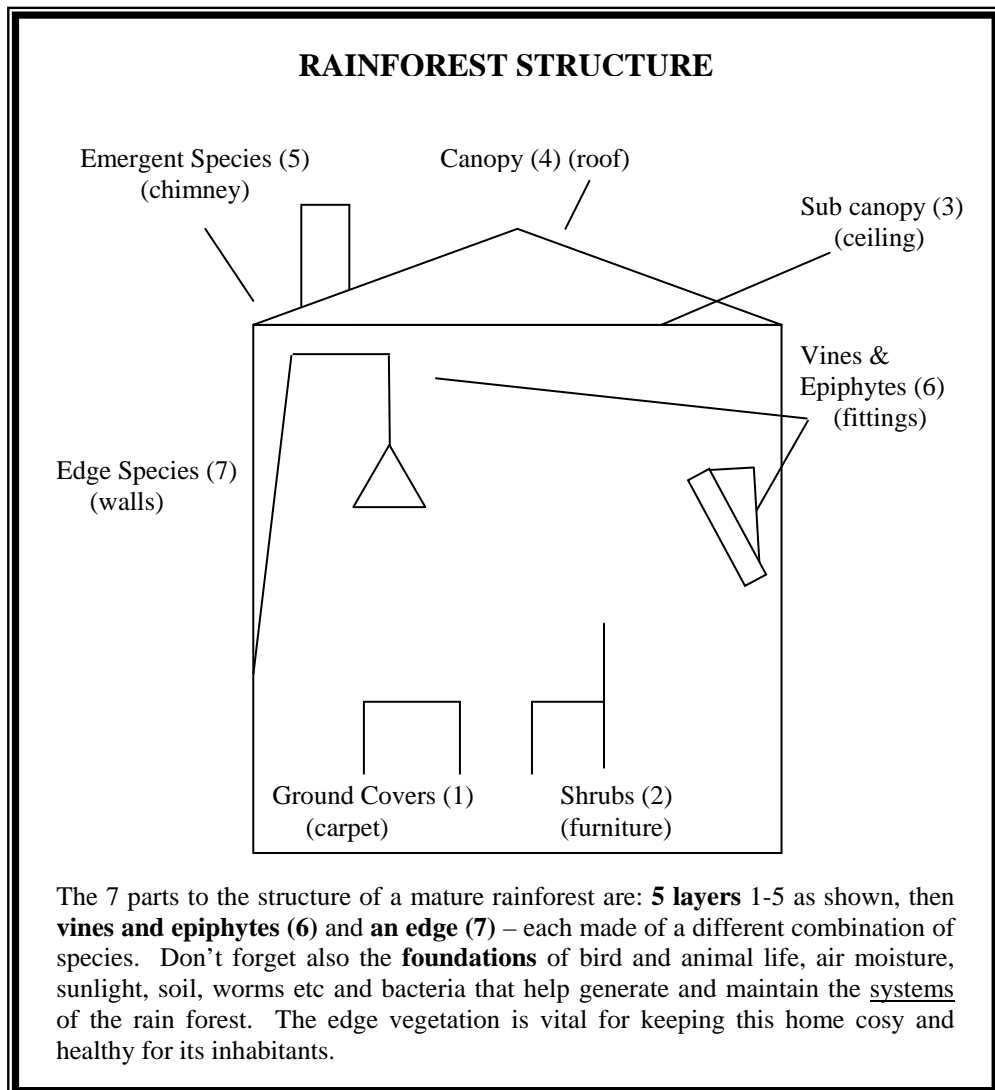
## WAITAKERE RAINFOREST – A HOME

Waitakere has rainforest. NZ is special because it is one of the few areas in the world where rainforest exists outside the tropics. Some bush areas in Waitakere are recovering after being logged, while other areas remain with their original density, diversity and structure – the hall marks of rainforest both here and in the tropics.

See the illustration below – which likens the structure of rainforest to a ‘home’, which it is.

The diagram will help in understanding the bush you see. Regenerating bush takes a while to develop this structure – but a healthy ‘edge’ is an essential component to healthy regrowth of the rainforest no matter what stage of development it is in.

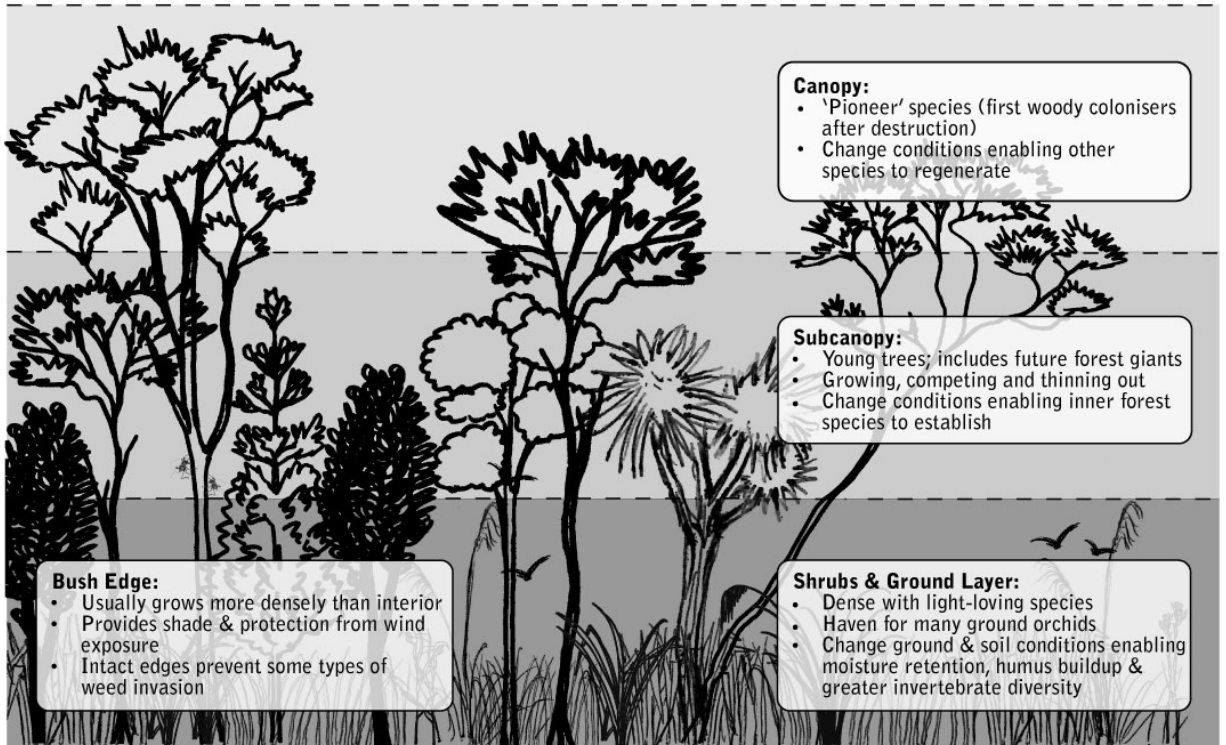
Can you name any of the species that make up each of the 7 parts of this structure? (See over)



Examine your bush – are all the seven elements there? And are they healthy?



The  
**Regenerating Rainforest - “Scrub”**



**Canopy:**

- 'Pioneer' species (first woody colonisers after destruction)
- Change conditions enabling other species to regenerate

**Subcanopy:**

- Young trees; includes future forest giants
- Growing, competing and thinning out
- Change conditions enabling inner forest species to establish

**Bush Edge:**

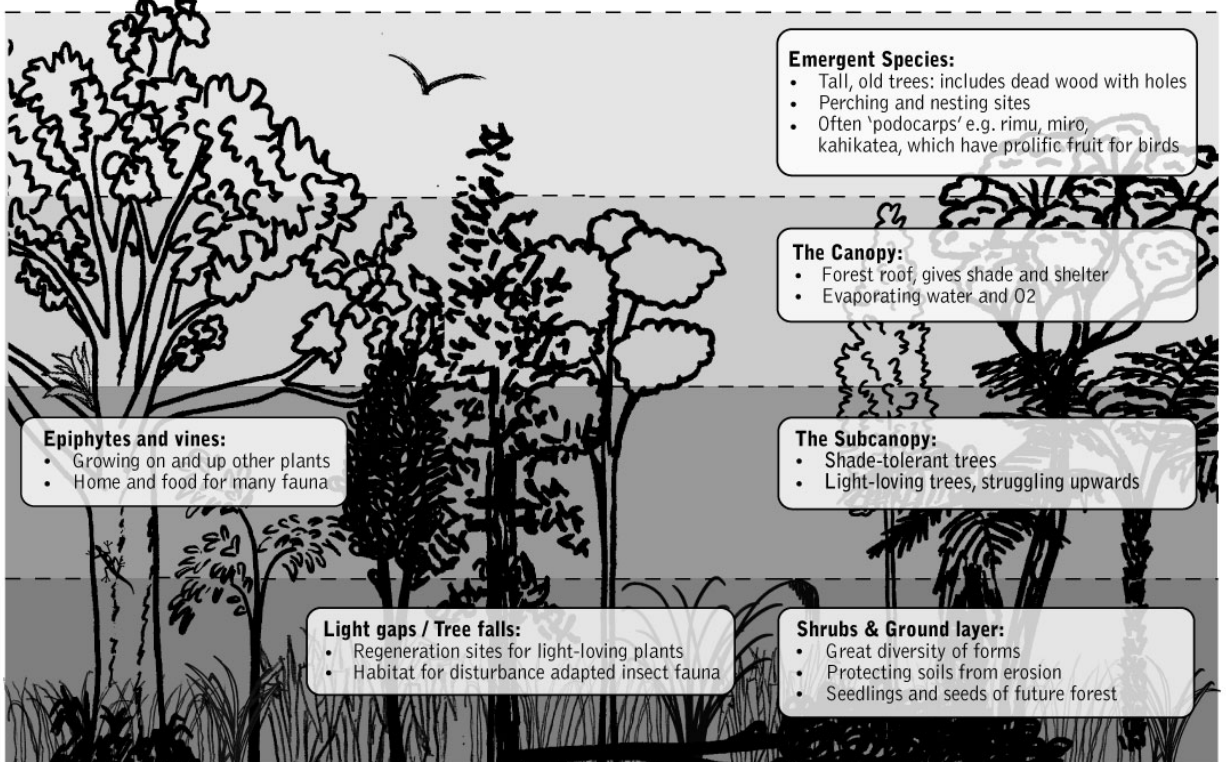
- Usually grows more densely than interior
- Provides shade & protection from wind exposure
- Intact edges prevent some types of weed invasion

**Shrubs & Ground Layer:**

- Dense with light-loving species
- Haven for many ground orchids
- Change ground & soil conditions enabling moisture retention, humus buildup & greater invertebrate diversity



The  
**Mature Rainforest - “Bush”**



**Emergent Species:**

- Tall, old trees: includes dead wood with holes
- Perching and nesting sites
- Often 'podocarps' e.g. rimu, miro, kahikatea, which have prolific fruit for birds

**The Canopy:**

- Forest roof, gives shade and shelter
- Evaporating water and O<sub>2</sub>

**Epiphytes and vines:**

- Growing on and up other plants
- Home and food for many fauna

**The Subcanopy:**

- Shade-tolerant trees
- Light-loving trees, struggling upwards

**Light gaps / Tree falls:**

- Regeneration sites for light-loving plants
- Habitat for disturbance adapted insect fauna

**Shrubs & Ground layer:**

- Great diversity of forms
- Protecting soils from erosion
- Seedlings and seeds of future forest