

10. RECYCLING AND REGENERATION

Forests are constant and dynamic. These large trees have been here for hundreds of years but even they grow old and die. A tree may have fallen because of age or as a result of a storm but it is a very important part of the forest life cycle. The fallen tree is host to a wide variety of life forms such as young plants to micro organisms. It is a community all of its own made up of:

- Young plants –canopy and sub canopy species that are taking advantage of the light that is able to reach the forest floor now that there is a gap in the canopy.
- Mosses, ferns, lichens, fungi, epiphytes and climbers
- Insects and birds.
- Dead and decaying material including leaves and twigs, which have fallen to the ground and are being broken down into leaf mould.

The litter layer is vital to the health and well-being of the forest. When it is removed by browsing, trampling or when trees are removed for firewood/timber the forest ecosystem functioning is disrupted.

Did you know?

Mosses lichens and liverworts

Mosses, lichens and liverworts are very primitive non-flowering plants. They are found on the forest floor, decaying logs and on living trees and shrubs.

Lichens are very common on the trunks and branches of trees and in fact some of the largest lichens in the world are found in New Zealand. Lichens are ultra-hardy. They are able to survive in extremes of temperature and moisture that would kill other plants, such as in Antarctica and deserts.

Mosses and liverworts are primitive land plants not fully adapted to terrestrial life. Most species live in a moist situation to avoid loss of water through evaporation. Although they possess leaves and stems, they have no true roots, only simple root-like strands known as rhizoids, which keep them anchored and absorb water and mineral salts. Liverworts are flat fleshy small plants that look similar to mosses.

10.1 TASK

- How many different plants can you find on the fallen tree?
- Why do you think this tree fell over?
- Can you see any fungi on the tree? If so draw it so that it will help you identify it later on.

- Look for insects in the litter. Draw it or describe.
- Carefully collect a handful of leaf litter. Spread it out on a white sheet of cardboard. Try to sort the material into leaves, twigs, insects, fungi. Record and count the material you found on the chart below. After you have finished return the litter to the forest floor.

<i>Type of Material</i>	<i>Number found</i>
<i>Dead Leaves</i>	
<i>Twigs</i>	
<i>Animals (insects etc)</i>	
<i>Fungi</i>	
<i>Other</i>	
<i>Type of Material</i>	<i>Number found</i>
<i>Dead Leaves</i>	
<i>Twigs</i>	
<i>Animals (insects etc)</i>	
<i>Fungi</i>	
<i>Other</i>	
<i>Type of Material</i>	<i>Number found</i>
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