

## Thin to waste

Field meetings of the Southern Region are renown for their stimulating discussions. They could never be said to be a dull whether discussing the management of part of the woodland being viewed or aspects of forestry practice.

In a recent discussion a forester used the phrase 'thin to waste'. An English dictionary's definition of waste is 'refuse, superfluous, left over as useless, valueless'. All these definitions fit forestry terminology in other words the practice of thinning out trees that once cut are left to rot on the ground and cannot be used as a by product by the forester elsewhere. However what is waste to the forester, is in biological terms certainly the wrong word as the remaining trees and their essential associated organisms all recycle dead wood as fertiliser.

In the past the annual fall of leaves and their resulting decomposition has been seen as sufficient fertiliser to replenish the needs of the growing trees. While to a certain extent this may be true it does not take into consideration the overall and complex ecosystem in which the tree is seen as merely one part, one player or one species of organism in the woodland web of life. In a natural system all wood that died and fell would eventually decompose and be recycled by trees and other living plants. The minerals and nutrients locked up in the dead material would be released in the decay process primarily through the action of fungi, bacteria and invertebrates [the decomposers]. Then the other element of the recycling process the mycorrhizal fungi [food gatherers], fused with the trees roots, extend and enhance the trees ability to search for food and transfer the fertiliser and water back to the tree.

Also the majority of the fungi and bacteria inhabiting the woodland humus and soil could be termed the tree's first line of defence against pathogens as they defend their area against all invaders whether beneficial or detrimental.

There are perhaps untold 1000s of species of bacteria, at least 1700 insects known to need dead wood and at least 2000 species of fungi that participate in recycling dead wood. Obviously the bulk of this diverse group of organisms, the majority of which are beneficial to trees, cannot be expected to survive on leaf litter alone.

It is well known that standing dead and decaying trees can provide the homes for many hole nesting birds such as woodpeckers and tits, roost sites for several species of bats and accommodate many insects such as hornets and wasps. All are very beneficial to a healthy forest working away throughout their whole life span. Anyone who watched a pair of blue tits feeding young or stood near a hornets or wasp nest is always amazed at the number of visits and prodigious number of insects and caterpillars they bring back in a continuous procession. Therefore it seems an extremely peculiar practice to cut dead trees down especially when a blue tit works away in the forest for 365 days a year and only asks for a home for 30 odd days.

It is interesting to ponder that whilst we tend our cabbages for a few months and assist their growth with man made fertiliser, we expect our trees to survive, remain healthy and grow for at least 60 - 120 years on only the rudiments of natural fertiliser.

Dead wood, an old lady once said to me 'is the woodland soil of tomorrow'. So why not in the 21<sup>st</sup> century change the term 'thin to waste' to 'thin to fertilise'.

**Ted Green:** Has worked as a plant pathology technician and is an amateur ornithologist and mycologist. He is now working as a conservation consultant to the Crown Estates at Windsor.