

Blean Woods National Nature Reserve

Mid-November to mid-December 2025

In my last article I wrote about the scarcity of dead and dying timber in our native woods in general, and at Blean Woods in particular. There is broad agreement that centuries of active management in nearly all British woods have led to a dearth of decaying timber, whether in the form of trees that are still standing, or collapsed giants mouldering back into the soil. As I mentioned then, although death will come to every single tree, this is normally a slow process, and so over the years attempts have been made to augment the dead wood interest at various sites in a number of ways. The simplest technique, which doesn't even require the manager to deviate much from standard practice, is to continue coppicing or felling timber trees, but to leave all the smaller, non-commercial limbs and branches to rot, rather than burning them. Spread out thinly on the ground, the wood will remain damp for much of the year, and so rot down quickly. Alternatively, the branches can be stacked; this has the effect of keeping most of the wood off the ground, so the wind can blow through the heap, keeping it dry and slowing down the tempo of rotting, with the additional benefit that bramble or honeysuckle may well scramble over the tangled array, converting dead twigs into a living bush that will attract a range of insects and provide cover for some nesting birds, particularly blackbirds and song thrushes. This is all good for the ecology of the wood, but the small diameter of the abandoned branches means that the wood won't be attractive to the more specialised invertebrates that bore into rotting tree trunks. More radical solutions are called for! The approach adopted at Blean Woods from time to time has been to ring-bark selected live oak trees. This is effective because the tissue that all trees depend on to stay alive and grow resides in a remarkably narrow layer immediately beneath the bark. First comes a layer of phloem, which is responsible for moving the carbohydrates generated in the photosynthetic powerhouse of the leaves downwards to the trunk and roots. Next comes a very thin layer known as the cambium, which builds fresh phloem on its outer surface, while its inner surface generates a layer known as the xylem, which contains the narrow pipes that transport water up the tree to the leaves, where it is chemically combined with carbon dioxide from the air to create carbohydrates, which are the building blocks of everything – roots, branches, leaves, acorns and heartwood. However, water is constantly evaporating from the leaves in summer warmth, so it is vital that the foliage receives a constant supply to rehydrate the tissue. We therefore have three narrow layers that are all critical to the tree's survival, yet which are protected from the assaults of the outside world by nothing more than a layer of bark which, in the case of beech, may be only a few millimetres thick. All the woodman has to do is cut a ring around the base of the tree, making sure to sever xylem, cambium and phloem, and the tree's fate is sealed. Surprisingly, though, death can take a couple of years, leading me to suspect that some water transportation can still be carried on in the dead wood closer to the centre of the tree; but, one way or another, the tree's roots are slowly starved of nutrients. The drawback with this technique is that this is death by a thousand cuts, fairly literally, not by fungal infection, so there are no wood-devouring fungi to kick-start the decay process, which may be delayed for years as a result – but then the woods have all the time in the world. Attempts have been made to inoculate trees with fungi, but I'm not sure how successful these have been.

Michael Walter
michaelwalter434@gmail.com
01227 462491