



Exploring oak woodland

Touring an oak wood

Prof. David Streeter:

Oak woodland occupies a very special place in British natural history because many people think it represents the natural vegetation of much of lowland Britain before man became a significant influence. However as no examples of that original wildwood survive nobody really knows what it looked like.

In fact the traditional idea that the whole of lowland Britain was once covered by a continuous sea of oak woodland has had to be quite seriously revised because modern pollen analysis has told us that the original woodland the predominant tree was not actually the oak but was the lime with hazel and elm and of course oak as well, and what has happened that during pre-history the lime and to some extent the elm has all been selectively removed.

In Britain we've got two species of oak - the common or pedunculate oak and the durmast or alternatively named sessile oak and they have slightly different soil requirements, but in some of the sandy soils of the Weald of Sussex, like here, we have both species growing together.

Historically woodlands were managed in one of two traditional ways, either as wood pasture or as coppice. Wood pasture was a method of managing woodland where tall mature trees were allowed to grow and mixed up with grazing animals between them, whilst coppice was a method of management whereby the trees were cut to ground level on a regular basis.

And the purposes for which oak coppice was used was either for tannin where the bark was stripped off the young shoots and the tannin was extracted from them, or as charcoal or perhaps in some parts of the country for pit props.

And what we've got here is the rather scrubby re-growth which hasn't been properly managed.

On the deeper soils of the valley sides the oaks would have done much better, they would have grown into much finer specimens, so here the trees would have been allowed to mature, and they would have been harvested as mature timber.

Woodlands are complicated places, they occupy an enormous space from the soil to the top of the tree canopies, and that space is occupied by the trees and the shrubs and the herbaceous vegetation and they generate a huge number of different kinds of habitats and that in turn produces an enormous diversity of woodland organisms.

Let's just have a look at some of the common woodland plants that are growing here by the edge of the path. What have we got? Well obviously first there's the bluebell, and with bluebell, what have I got down here - that's honeysuckle. And bramble, or blackberry whichever you like to call it. And bracken, the bracken fern.

And if you gave that list of plants to a Japanese or Chinese ecologists, and you said where in the world was this list made? if they were any good they would have to say you were somewhere in western Europe, in a woodland on a well drained acid soil. How would they know that? Well firstly from the bluebell, which is one of the rarest plants in the world because its only found in Europe west of the Black Forest, south of Holland and north of the Pyrenees, no where else. And the soil information would have come from the bracken - it only grows on acid soils and where those soils are well drained. Honeysuckle has got a very similar distribution to the bluebell, and of course it's not flowering here where I'm sitting but behind me where it's growing over the birches it'll be in full bloom in a week or two's time.

The tree canopies themselves support a much wider diversity of species than any other tree in western Europe, many of them specific to the oak. And if you add to that the enormous numbers of organisms depending on dead and decaying wood, then you have the most species rich habitat in the country.