**Watching trees: the private lives of trees and woods in Britain's landscapes**

*An Explore course over five weeks with Max Adams*

*October-November 2017*


In the fourth week of the course we will start by having a look at some pictures from this week's trees: our version of autumn watch. How much change have we noticed over the last week: is autumn in full flow or, as we move towards a spell of colder weather, are we seeing the end of the season looming? Have all the trees shed their seed; and if not, why not?

Today's main theme is flowers. We've looked at their products, seeds, and seen the astonishing variety of adaptations that enable trees to disperse their progeny and give them a head start. Trees' flowers are at least as sophisticated as their end products, even if there are many, many tree flowers that we ignore or don't notice because they are so unshowy. Why is that? In order to understand how and why trees produce their flowers we must start with pollination. What governs the rules of pollination; how do trees persuade prospective partners to co-operate in their version of sexual reproduction? Why do shape, size and colour matter? Why do some tree flowers get an early start; why do others delay? How and why have conifers and deciduous trees evolved such different adaptations for pollination?

In the second half of today's session I want to take a closer look at how trees behave when they are together – that is to say, in woods and orchards, from vast forests to small copses. Some trees are gregarious – they like to be together with others of their species; others prefer solitude. So what are the advantages of each strategy; what the downsides? How do they defend themselves from both competition and attack by all manner of organisms trying to steal their food, kill them or just use them as a vehicle to carry offspring? How do individual trees, and then woods, develop as entire, complex ecosystems with hundreds of niche habitats and thousands of species of animal, plant and insect? We delve into the hierarchies, guilds, partnerships and competition going on all around us all the time, perhaps unnoticed. It is often said that a mature oak tree can support more than 350 species of insect. In contrast, a non-native conifer might host fewer than a score, and this may be one reason why the conservation of native trees is so important. But it's not just the trees themselves that matter: it's the entire habitat that needs protecting – and watching.

This controversial subject will lead us towards next week's final session, in which I want to look at the relationship between trees and human culture.