INTRODUCTION
Plants in general have specific requirements in terms of growing medium, pH, moisture, light, slope, climate and altitude (Ellenberg Values). They and their allies, fungi, may all be classed as ‘indicators’ of a particular set of growing conditions and specific habitat-types, e.g. woodland or wetland; areas with high nutrient levels etc. Some have very precise requirements others are more general and able to grow in a range of habitats e.g common nettle. The distribution of plants is also influenced naturally by different mechanisms used in reproduction, e.g. wind-blown seeds, creeping rhizomes and by grazing as well as by human influence. All these factors come into play when considering ‘indicator species’.

BOTANICAL INDICATORS OF ANCIENT WOODLAND
Lists of plant species which have strong associations with known ancient woodlands and can therefore be used as indicators have been developed covering different areas of the country. These lists reflect different growing conditions and historical management across the UK and are still subject to refinement as further data is gathered and interpreted alongside historical and archaeological studies. Woodlands are classed as ancient using the accepted definition ‘in existence prior to 1600’. Although it is important to remember that all woodlands will have been managed in some way since then so the plant species which are present now may be different to those in the past.

In the case of the Sheffield area, woodland ground flora may consist of only a few indicator species in parts of the wood which have been altered as industrial activity has taken place. Outside these areas, for example stream-sides and boundaries which have had less disturbance more species may occur. Common ‘indicator’ species in these local woodlands are bluebell, wild garlic, wood anemone and dog’s mercury. These can all form carpets of plants covering the woodland floor.

A survey using the list of local ancient woodland indicator species should cover the whole of the woodland and be carried out across the spring and summer to identify the full range of species present. If several of the ‘strongly associated’ species occur together then this may indicate a site of an ancient woodland which may be confirmed by historical research.

Shadow ancient woods may occur in areas that are now plantations, secondary woodlands, ornamental planting schemes or even grasslands which have previously been cleared of their trees. These areas may be overlooked because of their present management regime but may exhibit continuity with an older landscape. Ancient woodland indicator plants should be recorded in these areas also.

BOTANICAL INDICATORS ASSOCIATED WITH FEATURES
The particular habitat requirements of some plants means that they can indicate areas of disturbance, industrial processing sites and outlines of archaeological features which may otherwise be difficult to pick up. For example, clumps of common nettle indicate an area with high nutrient levels perhaps associated with a former dwelling site and disturbance. Clumps of dog’s mercury and wood anemone have been found associated with industrial waste. Common bluebell is often associated with areas that have been previously stripped of turf and so may potentially indicate former coppice woods where turf was used for covering charcoal stacks. The outline of features which include stone work can be spotted by the moss growing on the stones which form a vivid contrast to the surrounding woodland floor.