

## **Teacher information on other photos of tree rings**

There are further photographs of tree sections and an expanded graph to show their inclusion in the chart. Again all trees were felled in Autumn 2002 so can be back dated.

There are also other photographs of tree sections where the growth is irregular, that is the sections are not round as one side of the tree has grown more/faster than the other. The result of this is that the rings on one side are closer together (reduced growth) when compared with the same rings on the other side (increased growth). See the photos described as off centre or irregular.

There are several possible reasons for this. The tree may have been on the edge of the wood and received more light on one side. From the map you can see that there was a large path to the south-west and a wide road to the south/SE of where the trees grew. The fact that they were also facing south in this region would also indicate that they received maximum sunlight for a longer duration each day. The pine trees are also very intolerant of competition so the side free of neighbours would grow more. The tree may therefore be at the edge of the population. Another possibility is that during its lifetime the trees by it were felled. This may account for any instances where the rings were initially the same all around the tree but as it grew older an irregular pattern appeared.

Trees facing a prevailing wind also show this pattern but this is unlikely to be the reason here due to the sheltered location

The worksheet for pupils is a follow on activity from the initial study of the pattern between diameter and ring number. Once they have grasped the idea that growth varies throughout the year in our climate they can try to discern why irregular patterns sometimes are seen in felled trees. They will also need copies of the map and aerial photo plus a selection of the photos showing the sections that are not round and regular.

Further details can be found on the web in those sites listed.