戶外通識教室：年輪可參考樹木的年齡

Nature's Classroom: Annual ring shows the age of a tree

木本植物才有年輪(Tree Rings)，草本植物是沒有年輪的。熱帶地區的樹木也沒有年輪，是因為赤道氣候沒有明顯的季節之分，所以樹木整年內的生長速度都差不多。有些熱帶地區有雨季和旱季之分，在這些地方的樹就可能形成年輪。可是這種年輪並非樹齡的可靠記錄，因為它們不一定是每年都出現的。簡單來說，年輪是樹木因週期性生長而長出的不同木質部層次。在暖溫地帶所生長之樹木，因四季較為分明，通常一年僅具有一個生長週期，與其生長層及生長輪相互對應，因此我們稱之為年輪層(annual layer)及年輪(annual ring)。有時看到路邊的斷木，我們不妨觀察它的年輪以推算它的樹齡。

註：於雨量充足的季節，樹幹組織生長快速，細胞壁較薄，形成較淺色的一環；在較乾旱的季節，組織生長慢，細胞壁亦較厚，便形成較深色的一環，深淺兩環加起來就是樹幹成長一年的印記。

Tree rings, also referred to as annual rings or growth rings, can be seen in a horizontal cross section cut through the trunk of a tree. Visible rings result from the change in growth speed through the seasons of the year, thus one ring usually marks the passage of one year in the life of the tree. The rings are more visible in temperate zones, where the seasons differ more markedly. For the entire period of a tree's life, a year-by-year record or ring pattern is formed that reflects the climatic conditions in which the tree grew. Adequate moisture and a long growing season result in a wide ring. A drought year may result in a very narrow one. Roughly speaking, each ring consists of a darker ring and a lighter ring. Common sense suggests that a wider stretch of the ring is related to a higher growth rate, in that particular year. The prevailing weather conditions and other factors (e.g. nutrients availability) may have caused it.