

Local Interest Group Visit to Cwm Byddog 9th May 2019

Present: Maureen Lloyd (ML), Stephen and Judy Mullard, Wendy and Dainis Ozols (DO), John Lewis, Helen Barnett, Sylvia and Rocky Illingsworth, Richard Harris, Cherry and Victor Williams, Joan Lloyd, Ann and Howard Dean.

Apologies: Roy and Avryl Lloyd, Edwina Griffiths, Iris Lloyd

Maureen Lloyd welcomed everyone and introduced Stephen and Judy Mullard, our guides for the visit. Stephen and Judy are the volunteer wardens for the reserve and Stephen is also on the Board of Trustees of the Radnorshire Wildlife Trust.

To begin with, Stephen gave us some background information about the Cwm Byddog reserve. It is c.10 acres in area and was bought by the Radnorshire Wildlife Trust (RWT) in 1998. In 2002, more land was acquired and about 4 years ago a "land swap" with some neighbours was negotiated which altered the layout of a small part of the reserve.



Stephen then told us a little about the motte which is close to the entrance to the reserve; this is known as Castle Kinsey (and sometimes Cwrt Gwynne or Court Evan Glynne). It is of archaeological interest and dates from the 11th or 12th centuries. It would once have had a wooden and then a stone structure on top. There is a scarp sloping back from the mound and this was where the bailey was. The site has not been excavated but it is regarded as being of national significance as it has the potential to reveal insights into medieval fortifications. RWT used to keep the motte free of larger vegetation but, more recently, it has been decided that it is better to leave the plants because the reserve has a dormouse population and things like bramble are very important food sources for this species, especially in autumn when they need to fatten up prior to winter hibernation. The motte and bailey were built when the site was much more open than it is today and so the castle would have had extremely good views of the surrounding countryside all the way round; it is a very good defensive site. The steep dingle alongside the side of the castle provided another excellent line of defence. The wood has grown considerably since medieval times. (There is more information about the castle at the end of these notes, supplied by ML and DO.)

Parts of Cwm Byddog are regarded as ancient woodland; this means that there has been a cover of deciduous trees for at least 400 years. The woodland was cleared, to some extent, before RWT took over in 1998, and it was replanted in places with ash, fir and some oak. However, some of the veteran and ancient trees were retained. The reserve is unusual in that it was purchased solely for the purpose of protecting these ancient trees, and around 18 of them remain. (The Woodland Trust also has an interest in the woodland and how it is managed because these trees are very important.) Stephen went on to explain that it is very hard to date/define an ancient tree. Those on the reserve could be anything between 180 and 350 years old, and some of the oldest (mainly oaks) are 400-500 years old. Of the 18 ancient trees identified, one is an alder (near the first bridge in the reserve), one is an ash and the rest are oaks. The oaks are hybrids of sessile and pedunculate oak. RWT's first aim is to preserve the trees and to bring back the ancient flora. It also aims to encourage biodiversity (flora and fauna) of the site, particularly in terms of wildflowers, dormice and woodland birds.

Stephen told us that we would be lucky on our visit because the spring wildflowers are currently blooming well and, right from the start of our walk, we saw early purple orchids, bluebells, red campion, greater stitchwort, yellow archangel and violets.



Early Purple Orchid

We walked on until we reached one of the ancient oak trees. Stephen explained that the brambles were cut back every year to stop them choking the plants beneath and also to help keep the paths clear. RWT has a team of volunteers who visit the reserve two or three times a year to deal with management issues and he and Judy visit regularly to deal with more routine tasks.

Stephen then told us a little more about the oaks within the reserve. He explained that oak trees take 300 years to grow to maturity, then they have another 300 years in their "middle age" and finally they take a further 300 years to decline. At Croft Castle there is a fantastic example of an ancient oak which is around 1000 years old; it has a girth of 10m (at nose height). The largest oak in Cwm Byddog has a girth of about 6m. He went on to explain that there are broadly three types of tree: a maiden, a coppiced tree and a pollarded tree. A maiden is a tree with a single trunk; it will not have been managed in any way. Coppiced trees are those which have had their young stems regularly cut down to near ground level to promote new growth, which can be harvested for use. Pollarding is similar to coppicing, but it usually takes place on a maiden tree of up to 3m/4m in height. The top of the trunk is sawn off and this results in the tree sprouting new boughs at the top.

Pollarding would have provided both timber and fodder for animals in the past. Pollarded oaks become stout and wide and they are not very tall. (It is also possible for trees to be pollarded naturally, for example through a lightning strike.) Both coppicing and pollarding will prolong the life of a tree.

Many of the ancient oaks within the reserve have gone through a process of hollowing. Stephen explained the difference between veteran and ancient trees. Veteran trees are those of middle age and onwards. Ancient trees are even older, but they also have particular characteristics: they start to hollow – both their trunk and their branches; holes appear within them; and, the amount of fungi colonising them increases. In old age, an oak will entrench. This means that its branches die and fall off and it takes on a “stag’s horn” appearance. This is an advantage to the tree as it makes it more stable and less likely to fall or be blown down. The hollowing of the trunk is also of benefit. Firstly, it makes the tree lighter. Furthermore, as the centre rots, the compost which is produced provides nutrients to the tree which are obtained by aerial roots that grow down into the cavity of the trunk – essentially it is feeding off its rotting self. All of this helps to lengthen the life of the tree by anything up to 300 or 400 years.



The woodland at Cwm Byddog has grown around the ancient trees, but it is the oaks that are crucially important within the habitat because more life is dependent on these trees than any other. A sycamore, for example, may support up to 30 different species; an oak will support 600 plus species. The veteran and ancient oaks have their own specialist species living on them and this makes them very important. The UK has the best collection of ancient trees in Europe. The reasons for this are: the fact that fewer wars have been fought on our territory and so less damage has been done to woodland areas; the Normans liked hunting and so they valued and preserved woodland areas; and, many oaks were planted around 200 years ago because oak was needed for our naval fleet under Nelson. Here, on the border of England and Wales, we are particularly lucky because it is an ancient tree “hotspot”. Species need to be able to spread from tree to tree and so having so many ancient trees in the vicinity is a positive advantage. Cwm Byddog has a rare beetle in one of the trees, only the third recording of the species in Wales. It obviously needs other beetles in order to survive and so having other ancient trees close by is a necessity. One of the Cwm Byddog oaks supports a bracket fungus, known as an oak polypore. This is only the fourth ever example found in Wales and it is virtually extinct within Europe. This fungus is found in association with Norman hunting grounds, another piece of evidence that Cwm Byddog is ancient woodland. Lichens are also

found on many of the trees and some of these are extremely rare. Lichens are very sensitive to atmospheric pollution and this is indicative of how clean the air is in our local area.

Stephen went on to explain that some of the trees on the reserve are in a poor condition and that they were like this when RWT took over the reserve. Some have gone into decline more recently and two have been lost. Oaks prefer a more open aspect and so they suffer when they are crowded by other trees. However, the answer to the problem is not to clear all of the surrounding trees at one time. RWT is very careful in its management of the ancient trees and had adopted a more gradual approach, known as halo thinning, for the last 15 years. They have also removed some of the boughs on the trees in order to reduce the weight that the tree is carrying. Crowns can be selectively thinned and this helps to prolong the life of the tree. Another way of improving the stability of the tree is to remove any boughs plastered in ivy. Ivy acts a bit like a sail in the wind and it also increases the weight on the boughs considerably. RWT volunteers also remove brambles from beneath the trees. Brambles are dense and hide the undergrowth, for example ash seedlings, from browsing animals. These seedlings would grow very quickly if left unchecked, creating competition for the ancient trees. Another management strategy adopted by RWT is to prematurely age some of the younger trees; this helps to diversify the age structure of the trees in the woodland.

Stephen told us that there is an Ancient Tree Inventory online, <https://ati.woodlandtrust.org.uk/>. You can enter your post code or location and it will give you information about ancient trees in your area, locations, photos, descriptions, etc. You can also contribute information about ancient trees you might find that are not already recorded.



Stephen then moved on to talk about the wildflowers that are found in the reserve. Many of these are indicator species for ancient woodland. Among the indicator species found in the woodland are bluebells, yellow archangel, early purple orchid, moschatel (town hall clock), wood sorrel, wood anemone, sanicle and there is one greater butterfly orchid. Another unusual and fairly uncommon plant found in a remote part of the reserve is green hellebore. This plant is associated with medieval sites and was used to cure worms and nits in the past. Amongst other medicinal plants found here is figwort, which was used to cure scrofula (a disease with glandular swellings, probably a form of TB); figwort smells horrid. Sanicle was also used for medicinal purposes and of it was said, "he who has sanicle (and selfheal) needs neither physician nor surgeon". The root of the name, *sanus*, means health.

Stephen explained that there are no “carpets” of bluebells in the woodland, as you might find in more heavily grazed areas, and that this is an advantage because it enables other wildflowers to thrive in amongst the bluebells.



Red Campion, Bluebell, Yellow Archangel and Greater Stichwort

In terms of fauna, the woodland is home to bats and hazel dormice, and boxes are provided for both species. At the end of our visit, at dusk, there was a bat (probably a pipistrelle) circling above us and putting on a very good display. There are also many woodland birds and we could hear them singing and calling as we walked around. Blackcap, garden warbler, chiffchaff, nuthatch, great spotted woodpecker and pied flycatcher, amongst others, can all be found.

Our last stop was the viewpoint over the Wye Valley and Black Mountains at the far end of the reserve. Here Stephen told us that different species of tree reach their “ancient” stage after varying numbers of years. For example, a birch is considered ancient after 200 years, a field maple after about 300 years and an elder at about 150 years (and a veteran after 80 years).

At the end, we made our way back to the gate and ML told us a little more about the castle. It is a Scheduled Ancient Monument and so is protected by law. The first mention of the castle is in 1397 but, as Stephen told us, it is possibly older than this. It was probably built by Cadwallon ap Madog. The ditched motte is c.31m in diameter and 4m-6.3m high, and the bailey enclosure is c.52m by 40m.

ML thanked Stephen and Judy for an incredibly interesting and informative evening. We had all learned a great deal about this lovely reserve and the ancient trees within it. In addition, we had enjoyed seeing such a wonderful display of wildflowers, in particular the early purple orchids. This is certainly a place which many of us will revisit. Judy told us that it was well worth coming back early in the year to see the wonderful display of snowdrops on the motte, but that there is always something of interest at any time of the year.