

# Ancient upland yew – new research

I first became curious about the upland yew on a mountainside in Cumbria in 1991 because of the startling red fruits catching my eye. I contacted Allen Meredith in case these mountain yews were of interest to him in his research for *The Sacred Yew* and I offered to voluntarily help. At the time I was photographing comparatively little known ancient sites in northern England and Scotland (such as places now being well publicised at Kilmartin in Argyll) supplying a picture library called Pagent based at Dartington Hall in Devon and therefore was ideally placed to look for yews at ancient sites which could be of relevance in areas difficult for him to easily access. Any examples I found I also supplied images of them for his assessment and use of in his work but feedback from him meant that I inadvertently began to become hooked on finding more. In 1994 I was sent a pre-publication copy of *The Sacred Yew* which arrived as a complete surprise to me and I was delighted to discover that Allen had insisted on one of my images being included, it's on page 165. However, it is miscaptioned, inferring it to be one of "the" Borrowdale Yews when it is in fact a yew in Borrowdale, four miles away south and about 900ft up a mountain.

### The Sacred Yew

I would like to concentrate on this particular yew because in 1999 it gave a whole new focus to my research. I was in Borrowdale at Midsummer of that year and took the opportunity to have another look at this yew and another four of its close companions, as well as another site high up on the opposite side of the valley between 1000 and 1500ft. The survey data with images was referred to Allen Meredith and his feedback was that one of these trees, in fact the very one in *The Sacred Yew*, looked like it could well be at least 3000 years old. It has a 9ft girth and he claims it could be the last surviving remnant of an incredibly old root system, perhaps established immediately after the end of the last Ice Age, and still surviving upon the mountainside.

### Borrowdale a microcosmic example

I found this very hard to accept, that there were ancient yews in areas of Britain where no one had paid any attention before - simply because the trees in question are small and stunted and do not appear to be typically ancient e.g. have a 20ft girth. Given that the famous and large Borrowdale Yews exist in the same valley it raised the obvious question of how could yews deemed to be of possibly similar ancient age actually be so different in girth sizes and if so what limited the growth of the smaller ones. The obvious thing to consider was the frost factor, elevation and rock type. And so Borrowdale and the yews in its valley became a microcosmic example of what could also exist in similar environments all over the UK, especially in northern England and Scotland.



An upland yew at Scawdale (Paul Greenwood)

### Volcanic shales

Unlike in the upland areas of limestone where wild yews have been noted in recent years (and as noted by Allen and myself in south Wales) and is commonly quoted as being one of the yew's preferred environments, in Borrowdale the rocks consist of volcanic shales and slates and are amongst the oldest in Britain, particularly in central Borrowdale. Incidentally it was from this location that stones were taken to build the magnificent stone circle at Castlerigg, which is claimed to be older than Stonehenge. It crossed my mind therefore that the great age for one of these trees estimated by Allen Meredith could be feasible if on a nutritional basis it has existed on a poor diet derived from talus in comparison to upland limestone areas. All enquiries seeking advice on this came back with the same response, no-one has thought about this before.

### Britains oldest trees?

Then, last year I learned of an article by Doug Larson of the Cliff Ecology Research Group, University of Guelph, Ontario, Canada published in *Nature* magazine in April 1999. It concerned ancient stunted trees on cliffs being part of a previously undetected global pattern and most probably containing some of the oldest woody plants on earth. As I have later discovered via corresponding with him, his team discovered the almost impossibly slow growth rate of over 210 rings in 1.5cm of a dead yew branch from a site at Whitbarrow Scar, a limestone escarpment in southern Cumbria. His is the only such study to have been done yet and it definitely points to the very real possibility that some of Britains oldest trees may be on mountainsides, especially in environments as found in Cumbria. The slow growth rate found if uniformly applied to a 9ft girthed yew tree in similar terrain (and the study found that tree recruitment and growth patterns in these areas was steady throughout and not pulsed ) makes the 3000 year estimate a clear possibility after all. Doug Larson did emphasise that his samples were from trees growing on cliffs. Whilst some examples of yews on sheer cliff faces do exist in Borrowdale in some number, most are virtually



inaccessible without rope climbing. The yews I focus upon are in steep rocky areas of loose scree and boulders and not necessarily ledges of sheer faces but they are as close as possible to replicating the precise environment of the examples in the sample.

### Overlooked ancient heritage?

I am not personally claiming with certainty that such ancient yews exist but the only empirical data evidence available from Doug Larson's pioneering study suggests that it is a distinct possibility and a large proportion of the ancient yew tree heritage of Britain is overlooked and in need of some serious professional attention to establish whether this is the case or not - that these trees are such venerable extant examples.



How old are our upland yew? Yew at Scawdale (Paul Greenwood)

### Warden protection

It is not just in Borrowdale that I tested the hypothesis as Allen Meredith and I saw the same type of small stunted yews on an 800ft limestone crag at Cappell Carregg in S Wales. In his opinion they had the visual characteristics of miniature looking ancient yews. Doug Larson's findings also extended to areas of Derbyshire too for example and no doubt you can think of a few more regions where small yews on limestone escarpments exist. Can I suggest Castle Eden Dene and Teesdale, Durham; North Yorkshire, Lancashire (fortunately the yews of Gait Barrows have been recognised and have warden protection as also at Castle Eden Dene) and Northumbrian river valleys like the Allen, containing steep sided gorges which references state used to provide wood for longbows in the medieval and Middle Ages period - and who knows how long before that?

### Global significance

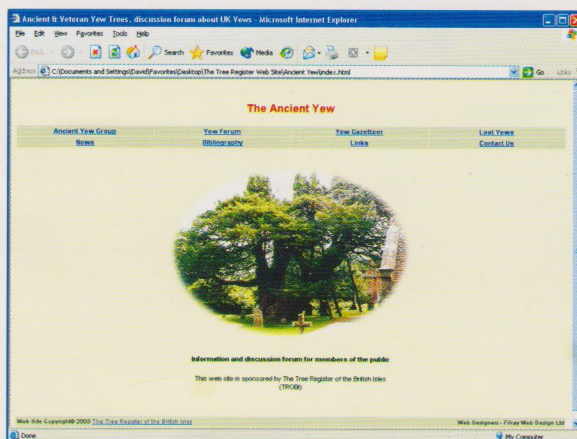
Forest fires ravaged Cumbria in 2003 and one was in the valley adjacent to Borrowdale. I had a few heart stopping moments that the fires could destroy what are potentially a tree heritage of global significance. The trees' isolation used to be in a remote area, only seasonally open for tourism between March and October - as it was when I lived and worked there for the Youth Hostels Association in the early 1980's. But now with the demands of tourism it is all year round and with the inevitable taxing and deterioration of such a truly awe inspiring environment. My fear is that we may lose some of our most precious natural inhabitants before they have been properly researched.

### Raising awareness

Basically I am a yew tree finder based on the premise that we cannot truly succeed in the objective to protect our ancient yews until we know the extent of that population which needs help - and we cannot help what we are not aware of. So for the last 12 years I have been building a corpus of work designed to extend the unintentionally created boundaries which are the norm in the public domain, that veteran and ancient yew are a phenomenon found throughout Britain and Ireland and that small northern yews can be certainly veteran and in some cases potentially very ancient.

Paul Greenwood is part of The Ancient Yew Group whose aims are:

- To **raise public awareness** of the national and world wide importance of our ancient Yews.
- To **survey, record and monitor** the health of our ancient Yews.
- To **highlight potential threats**.
- To **research** and collate all modern and historical references of our ancient Yew heritage.
- To **provide advice** to help people protect their ancient Yews.
- To **campaign for better protection** and seek government support.
- To **bring together Yew tree enthusiasts**, providing an opportunity to discuss, enthuse and help towards achieving the above aims.



A new web site with The Ancient Yew Group approved ancient and veteran yew gazetteer, a comprehensive photographic database and yew chat forum, will be available online later in 2004, funded by The Tree Register and Conservation Foundation.