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## Xtreme tree hunting

A cliff face appears a hostile environment for any plant to survive and yet can be home to unique old growth ecosystems and some our most ancient trees. Finding old trees growing on cliffs is not unknown throughout the world, but is rarely mentioned when discussing populations of ancient trees amongst British and Irish tree experts. Thomas Pennant provided us with an early reference, describing the significance of the old yew trees on the cliffs above Llangollen in his book *A Tour in Wales* (1778-1783) "...parallel strata of white limestone, often giving birth to vast yew-trees".



Ancient yew on the limestone cliffs above Llangollen (Tree Register)

As is found throughout the world, it is our evergreen trees that survive best in these extreme locations. In Britain we must look towards yew, juniper and holly as being our only native evergreens for potential cliff face rocky ancients. Long lived broadleaved species, such as oak, are unable to maintain slow growth long enough to survive much more than 250 years on extreme sites. And yet rowan, the mountain ash, appears to be able to reach 200 years in a rocky soilless environment, well beyond its normally expected age. Whitebeam and its various limestone cliff face growing sub species, may reach a similar age.



Roots searching for support and nutrients between the rock strata. (Tree Register)

Longevity of a cliff face tree is dependent upon the tree maintaining unusually small annual ring widths and only those species such as yew and juniper with fine cell structures appear able to sustain such slow growth and survive to a great age on cliffs in Britain. Two 1,000 year old yew were cored by Canadian cliff ecologist Doug Larson above Llangollen, north Wales, where the petrified wood of roots, exposed to the weather following erosion of the limestone, is a key indicator of old age.



Recreational tree hunter Michael Spraggon navigates to an ancient yew estimated to be 750-1000 years old. (Tree Register)

So, the next time you gaze up at some wee trees growing on a limestone cliff, spare a thought, they may be the oldest trees you have ever seen!



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We should like to thank Paul McCartney for his continued generosity in sponsoring this newsletter.