

## Quirks & Tips

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### The Oldest Living Thing

“Methuselah is 4,767 years old.....what is it?”



*Adapted from the Worsley School*

The oldest living things on earth are Bristlecone pine trees, some of which can be found in the White Mountains of California. Many of them are over four thousand years old. Many of the trees living today were seedlings when the pyramids were being constructed, and mature trees in the time of Christ. These trees are ancient!

The oldest Bristlecones live in exposed sites at high altitudes, with lots of space between each tree. Strangely, these trees thrive only in the harshest of environments. The White Mountains, which rise to over 14,000 feet, are east of the Sierra Nevada mountain range, and so they get almost no rain. They're one of the driest places on earth during the summer. The trees live in hilly areas at the 10,000 foot level, where it is cold and windy.

Young Bristlecone pine trees are quite normal looking ... they assume their unusual shapes only with great age, when their limbs are mostly dead, carved into strangely beautiful shapes by thousands of years of exposure to the elements. The trees need just a few needles and a bit of living bark to survive.

How do these trees manage to live so long, in such a harsh environment, with strong winds, dry air, little rainfall, and very alkaline, sandy soil?

- The dry winds actually discourage insects, and help prevent fungus and rot.
- The tree's hard wood also provides protection from pests and disease.
- The Bristlecone pine uses almost all its energy for survival, rather than for growing. Its trunk may grow less than 1/100th of an inch per year, and trees reach a maximum height of about only 18 metres.

Older Bristlecones may consist mostly of dead wood, with only strips of living bark. Bristlecones are also isolated, as few other species can survive the harsh conditions. Forest fires seldom happen, as the trees grow far apart, and their needles last 20 - 30 years, so there is little ground cover to spread flames.





Bristlecones can remain standing for hundreds of years after death. They fall because the supporting roots finally decay, or are undermined by erosion. Yet even the oldest trees have the ability to produce seeds that will grow.

The oldest living Bristlecone pine is named 'Methuselah', and is 4,767 years old. Methuselah is not marked or identified, due to the threat of vandalism ... the U.S. Forest Service refuses to give its location or identity. But the trees weren't always as well protected. One even older tree was lost not long after it was discovered. In 1964, a researcher was taking core samples from some Bristlecones in Nevada, to determine their ages. When he discovered one that was well over 4,000 years old, the U.S. Forest Service gave him permission to cut the tree down! Named 'Prometheus', the tree turned out to be 4,950 years old, the oldest known living thing on the planet. It was likely the oldest tree in the world even when Shakespeare was writing plays!

Are Bristlecones really the oldest living organisms? A plant that may be even older is being studied by scientists in the Mojave Desert. It is thought that some creosote bushes there may actually be as old as 7,000 years!

The Worsley School, Alberta, Canada  
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