

= Old Tjikko =

Old Tjikko is a 9 @, @ 558 -year @-@ old Norway Spruce , located on Fulufjället Mountain of Dalarna province in Sweden . Old Tjikko originally gained fame as the " world 's oldest tree " , however , this is inaccurate , as only clonal trees , and not individual trees , are known to live this long . Though there are older clonal trees , Old Tjikko is recognized as the oldest living clonal Norway Spruce .

The age of the tree was determined by carbon dating of genetically matched plant material collected from under the tree , as dendrochronology would cause damage . The trunk itself is estimated to be only a few hundred years old , but the plant has survived for much longer due to a process known as layering (when a branch comes in contact with the ground , it sprouts a new root) , or vegetative cloning (when the trunk dies but the root system is still alive , it may sprout a new trunk) .

= = Discovery and details = =

Old Tjikko is estimated to be at least 9 @, @ 550 years old , making it the world 's oldest known individual vegetatively cloned tree . It stands 5 metres (16 ft) tall and is located on Fulufjället Mountain of Dalarna province in Sweden . For thousands of years , the tree appeared in a stunted shrub formation (also known as a krummholz formation) due to the harsh extremes of the environment in which it lives . During the warming of the 20th century , the tree sprouted into a normal tree formation . The man who discovered the tree , Leif Kullman (Professor of Physical Geography at Umeå University) , has attributed this growth spurt to global warming , and given the tree its nickname " Old Tjikko " after his late dog .

The tree has survived for so long due to vegetative cloning . The visible tree is relatively young , but it is part of an older root system which dates back thousands of years . The trunk of the tree may die and regrow multiple times , but the tree 's root system remains intact and in turn sprouts another trunk . The trunk may only live for about 600 years , and when one trunk dies another eventually grows back in its place . Also , each winter , heavy snow may push the tree 's low @-@ lying branches to ground level , where they take root and survive to grow again the next year in a process known as layering . Layering occurs when a tree 's branch comes in contact with the earth , and new roots sprout from the contact point . Other trees , such as coast redwoods and western redcedars are known to reproduce by layering . The tree 's age was determined by carbon @-@ 14 dating of the root system , which found roots dating back to 375 , 5 @, @ 660 , 9 @, @ 000 , and 9 @, @ 550 years . Carbon dating is not accurate enough to pin down the exact year the tree sprouted from seed , but given the estimated age the tree is supposed to have sprouted around 7550 BC . For comparison , the invention of writing (and thus , the beginning of recorded history) did not occur until around 4000 BC . Researchers have found a cluster of around 20 spruce trees in the same area , all over 8 @, @ 000 years old . Previous researchers considered the Norway spruce species to be a relative newcomer to Sweden , with theories postulating the tree migrated into the area around 2 @, @ 000 years ago . Trees much older than 10 @, @ 000 years would be practically impossible in Sweden , because until around 11 @, @ 000 years ago the area was in the grip of a world @-@ wide ice age . Nature conservancy authorities are considering putting a fence around the tree to protect it from possible vandals or trophy hunters .

= = Access = =

There is a small path leading up towards the tree . However , it is unmarked , as park rangers do not want to encourage large groups of tourists to surround the tree . A free guided tour can be arranged at the entrance (Naturum) that can take tourists to the tree .