

Alerce tree in Chile may be the oldest in the world

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Jonathan Barichivich

Credit: Dr. Jonathan Barichivich, [jbarichivich.github.io/](https://github.com/jbarichivich)

Chilean environmental scientist Jonathan Barichivich has been making waves in the dendrochronology community of late due to his study and findings regarding an alerce tree in Alerce Costero National Park—he believes the tree may be the oldest in the world. Barichivich has not yet published a paper describing his study of the tree, which has been named Alerce Milenario, but plans to do so in the coming months. In the meantime, he has been presenting his findings at various meetings and conferences.

Barichivich is well acquainted with the tree. He grew up in and around the park, as both his parents worked as park rangers there. It was only recently that he began a serious study of the tree. His work involved taking a non-destructive core sample to count the tree's growth rings—the gold standard for determining a tree's age. Unfortunately, the drilling device was too short to penetrate all the way to the center of the tree. Thus, he only got a partial count.

Undaunted, he collected core samples from other, younger trees of the same type growing in the vicinity. He then used statistical modeling to make a guess at the tree's age. Information for the modeling came from core data from the Alerce Milenario and from the other [core samples](#), along with [environmental data](#). The model was then used to estimate the number of rings that likely formed in the inner parts of the core that were missing. The model suggests that the tree is likely 5,484 years old, which breaks the record for oldest tree by over 600 years. The old record was held by a bristlecone pine growing in California—testing had shown it to be 4,853 years old.

Barichivich refers to the tree as Gran Abuelo and plans to continue studying its features. He acknowledges that more work is required to confirm its age, including getting a full core sample. In the meantime, he has been pressuring the government to put stronger protections in place for the tree, suggesting it represents a truly historical specimen.

More information: Is the world's oldest tree growing in a ravine in Chile? (2022). [DOI: 10.1126/science.add1051](https://doi.org/10.1126/science.add1051).
[www.science.org/content/article... growing-ravine-chile](https://www.science.org/content/article/growing-ravine-chile)

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