

Catastrophically reduced precipitation in the Eastern Alps 1000 AD \pm 200 ?

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In situ and fallen trees (*Larix*) were discovered during a diving expedition in Oct. 2005 in a high alpine lake. Two aspects of this discovery are important:

1. Lake level must have been lower by at least 20 m during the time of tree growth. The in situ stem in growing position has 495+ growing rings.
2. The time of a low lake level is given by a radiocarbon age 940 ± 50 y BP (AD 1017-1211 calib) of ETH-sample 31'117. The dendro-chronologically dated end-year of available tree rings is AD 974. This is without originally available splint wood which means most likely that the tree has died in the earliest part of the 11th century.

These data are compared to earlier investigations in the same lake as well as to western European records of low lake levels and to the local place names.