

Tree Rings and Climate



Climate scientists can learn about the climate of the past by measuring how much trees have grown each year. There are two ways to look at tree growth rings:

Tree Ring = a cross section of a trunk that can be cut from a dead tree.

Tree Core = a thin, cylindrical sample that can be drilled from a living tree.



Drilling a tree core, photo credit: National Park Service

First year growth
Rainy season
Dry season
Scar from forest fire

Spring/early summer growth
Late summer/fall growth

In regions like
Colorado, trees grow
more in wet years and
less in dry years. This
means the thickness
of each year tells
scientists how much
precipitation fell.
Scientists can also
see evidence of past
fires where a tree was
burned, but still
survived and
continued to grow
around the burn scar.



NOAA's **National Centers for Environmental** Information
maintains an archive of
paleoclimate data from tree
rings and other sources.

