## Anomalous 20th century ponderosa pine growth and potential CO2 fertilization in naturally-occurring stands in the interior West, USA.

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This project, a collaborative effort with Dr. Peter T. Soulé of Appalachian State University, has involved dendroecological field work in Washington, Oregon, northern California, Idaho, Montana, and Utah to collect samples of ponderosa pine from a variety of environmental settings. We have published our findings from the PNW sites in the journal, New Phytologist (2006) vol. 171, pp. 379-390.

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To minimize the influence of confounding factors on tree growth such as fire suppression, logging, air pollution etc.., we selected trees growing in park-like stands and on Federally-protected sites such as research natural areas (RNAs). Above: pond erosa pine growing on the Upper Sand Creek RNA in central Utah, June 2006.



Steve Shelly (right), the RNA coordinator for Region 1 of the USFS and former Carolina Tree-Ring graduate student Jason Ortegren at Ferry's Landing RNA in northern Montana, August, 2005. This is another example of a park-like stand of ponderosa pine.