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## Subfossil trees from the Southern French Alps: Lateglacial wood and $^{14}\text{C}$ measurements from Aix-en-Provence

### Content

In the region of the upper course of the Durance River in the Southern French Alps, many subfossil woods (*Pinus sylvestris* sp.) were discovered in alluvial sediments dated from Late Glacial to the first part of the Holocene (Miramont et al. 2000, Radiocarbon). Since the end of the last glacial period, the rivers of this region have been characterized by alluvial detrital phases, interrupted by periods of river incision. Pines were killed and buried by floods during these sedimentation phases. Marl soils allowed for a very good preservation of these subfossil trunks, sometimes preserved with the bark. Our program to improve the  $^{14}\text{C}$  calibration is to work on two main chronologies: - DROU (from the site of Drouzet) is 505-year long and composed of six shorter chronologies with more than 50 trees, covering part of the Bölling-Alleröd period (~14360-13855 cal. BP). It was selected because it could contribute to extend the IntCal tree-ring calibration beyond the German-Swiss CELM chronology. - BARB (from the site of Barbiers) is 312-year long and composed of two shorter chronologies of 9 trees, covering the first part of the Younger Dryas period. This chronology should help connecting the YDB and the CELM chronologies. We will present new results on BARB wood sequences sampled at annual resolution. So far, every third ring was pretreated for  $^{14}\text{C}$  analysis by using an ABA-B method before combustion and graphitization with the AGE system and AMS measurement with AixMICADAS (Bard et al. 2015, Nucl. Instr. Meth. B). Comparing with the Kauri record from New Zealand (Hogg et al. 2016 Radiocarbon), allows placing our sequence between ca. 12906 and 12596 cal. BP. Our new triennial record allows estimating the Inter-Hemispheric  $^{14}\text{C}$  gradient over the overlapping period with the Kauri sequence.

### Student Submission

No

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