

Long-term tree inventory data from mountain forest plots in France

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Abstract. We present repeated tree measurement data from 63 permanent plots in mountain forests in France. Plot elevations range from 800 (lower limit of the montane belt) to 1942 m above sea level (subalpine belt). Forests mainly consist of pure or mixed stands dominated by European beech (*Fagus sylvatica*), Silver fir (*Abies alba*), and Norway spruce (*Picea abies*), in association with various broadleaved species at low elevation and with Arolla pine (*Pinus cembra*) at high elevation. The plot network includes 23 plots in stands that have not been managed for the last 40 years (at least) and 40 plots in plots managed according to an uneven-aged system with single-tree or small-group selection cutting. Plot sizes range from 0.2 to 1.9 ha. Plots were installed from 1994 to 2004 and remeasured two to five times during the 1994–2015 period. During the first census (installation), living trees more than 7.5 cm in dbh were identified, their diameter at breast height (dbh) was measured and their social status (strata) noted. Trees were spatially located, either with *x*, *y*, and *z* coordinates (40 plots) or within 0.25-ha square subplots (23 plots). In addition, in a subset of plots (58 plots), tree heights and tree crown dimensions were measured on a subset of trees and dead standing trees and stumps were included in the census. Remeasurements after installation include live tree diameters (including recruited trees), tree status (living, damaged, dead, stump), and for a subset of trees, height. At the time of establishment of the plots, plot densities range from 181 to 1328 stems/ha and plot basal areas range from 13.6 to 81.3 m²/ha.

Key words: forest management; France; mountain forest; permanent plot; tree canopy height; tree canopy radius; tree diameter; tree growth; tree height; tree mortality; tree recruitment; tree spatial coordinates.

The complete data sets corresponding to abstracts published in the Data Papers section of the journal are published electronically as Supporting Information in the online version of this article at <http://onlinelibrary.wiley.com/doi/10.1002/ecy.1759/supinfo>

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