Dendroclimatic investigation of endemic woody species from the Azores

Jernej Jevšenak, Slovenian Forestry Institute, Slovenia
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Dendroclimatological investigations of endemic woody species from the Azores are rare and would improve our understanding of future performance of studied species. In the scope of EFI SSV, we have applied dendroclimatological methods on samples of endemic woody species from the Azores, namely *Laurus azorica*, *Ilex azorica* and *Juniperus brevifolia*. Our work was based on previously collected tree cores, although we have also organized two field works, where a few additional samples were collected to extend the existing tree-ring network. Tree-rings were measured using the CooRecorder software, cross-dated in PAST5 and detrended in the dplR R package. Climate-growth analysis were performed with *dendroTools* R package, which uses climate data on daily scales. Despite our great efforts, we were unable to cross-date *Juniperus brevifolia*, therefore we analysed climate growth correlations only for *Ilex azorica* and *Laurus azorica*, which were successfully cross-dated. *Ilex azorica* is positively correlated with higher precipitation amounts in early part of a growing season, while precipitation in later part of a growing season, generally have negative effect. *Laurus azorica* can benefit from higher amounts of summer precipitation, while late autumn precipitations have negative effect on radial growth. The precipitation effect is less-pronounced, both species benefit from higher temperatures in late spring to early summer. In addition, *Ilex azorica* is sensitive to higher temperatures at the beginning and end of growing season. Therefore, both species show similar response to climate, which consists of positive effect of higher temperatures in early part of the year and negative in the second part. Higher summer temperatures are beneficial for both species. Those results will need to be confirmed by including additional samples from other sites from the Azores.