



Human impact on vegetation: Previously results of dendrochronology and pollen analysis from the western Rough Clicia

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Western Rough Clicia lies on the southern Mediterranean coast of Modern Turkey. Here, the Taurus Mountains fall steeply to the sea. In Roman times, Rough Clicia as a production center was an important part of Roman Province of Clicia.

The history of human settlement in southwest Turkey has been studied as a series of archaeological and historical field surveys and excavations. Whilst the reconstruction of vegetation and human-induced landscape change is primarily based upon pollen analysis, dendrochronology and the other paleoecological methods. Our investigative methods include dendrochronology of trees samples and pollen analysis of terrestrial sediments.

The previous results of analysis from the terrestrial sediments samples indicate a pattern of degraded vegetations. *Plantago* is obtained for areas with serious grazing experience; whereas, *Juniperus oxycedrus* L., *Q. coccifera* L. and Chenopodiaceae, *Plantago* characterize the effect of human impact on natural forests and their replacement by secondary vegetation. They also reveal the existence of three different palynological zones related to the Last Glacial/Interglacial paleoclimatic conditions in the source area, as reflected by the increasing steppe types.

Results of the dendrochronological analysis show that the oldest trees about 450-500

years old in the region. Scarcity of the old trees in that forest shows that the area was under a heavy human impact for a long time and within this time period the old trees cut by people in that vicinity.