

ABSTRACT

Various gymnosperms from Shogran valley, District Mansehra were investigated in this research study. Their analysis of tree ring study was carried out, 78 cores were obtained from 40 cores of three different gymnosperm. First specie was *Cedrus deodara* and second one is *Pinus wallichiana*. Third specie was *Taxus baccata*. Growth rate, age and diameter were analysed. All samples were cross dated by COFECHA software as well as auto-standardization through ARSTAN computer program. Highest age was found in *Pinus wallichiana* was 593 years old and youngest was observed also in this specie and age was 98 years old in all collected samples. Th highest Dbh was notes in *Cedrus deodara* was 66.53 inches and the lowest was 21.25 observed in *Taxus baccata*. From collected samples, average growth rate was analysed. By using COFECHA, Cross-dating sample was done. This software provides numerical of all values like mean ring-width, mean sensitivity, maximum ring-width, standard deviation, correlation with master and autocorrelation. By using ARSTAN, auto-standardization was done. With this program, obtained four different chronologies like raw, standard, residual and ARSTAN. Different parameters were provided like mean index, standard deviation, mean sensitivity, serial correlation, Kurtosis coefficient and Skewness coefficient.