ABSTRACT

In this study different conifers from two sites including Malam Jabba and Shangla were investigated. Their dendrochronological assessment was studied. Samples of Taxus baccata and Pinus wallichiana were collected from Malam Jabba and Shangla respectively. Total 38 cores of T. baccata and 54 cores of P. wallichiana were extracted from these two sites. Age, Dbh and growth rate of these species evaluated. The sample were cross-dated by COFECHA program and standardized through ARSTAN. At Malam Jabba highest age of 321 year (Tb-26) was noticed, while at Shangla P. wallichiana showed the highest age of 434 year (Pw-4). T. baccata showed maximum Dbh value of 115 cm (Tb-26), while P. wallichiana showed maximum Dbh value of 95 cm (Pw-35). At Malam Jabba maximum growth rate value of 0.465 cm/years was found while at Shangla maximum growth rate was 0.483 cm/years. COFECHA was used to cross date samples. This program provide value of mean ring width, standard deviation. maximum ring width, mean sensitivity, auto-correlation and correlation with master for each series. ARSTAN was used to standardized data and this software provided four chronologies including raw, standard, residual and arstan chronology. Each chronology provide information about different parameters including mean index, mean sensitivity, standard deviation, serial correlation, kurtosis coefficient and skewness coefficient, Climate growth response of both species was also studied. The climate signals in both sites were encouraging for the reconstruction of past climate conditions.