

Climatic Signal in Radial Growth Variations of *Larix Decidua* Mill. - Introduced Species in Lithuania

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European larch was introduced to Lithuania in the middle of the 19th century. Some remains of these plantations still exist up to date, so, annual radial growth variations can be analysed for the up to 150 years long period.

Lithuania is outside and north of the *L. decidua* natural area. But larch trees are frost - hardy, stand cold winters well and even naturally regenerates here. Factors influencing larch tree annual growth variations had not been investigated and such was the aim of this study.

The study site was selected in *Laricetum myrtillosum* forest type in the central part of Lithuania. A 132 years long tree ring chronology covering 1868-1999 was produced after tree ring data analysis and dendroclimatic investigation carried out using meteorological data of Kaunas station (54°55'N, 23°56'E).

Principal component analysis of the tree ring data has revealed strong homogeneity in variations, indicating strong common driving factor. 65.5% of variance is explained by the first PC, its eigenvalue reached 5.24. Significant negative correlation of the chronology with the temperature of previous June and July, current year January and June and positive correlation with the temperature of current May, the precipitation of previous June and current year summer months have been detected. But correlation coefficients are not high. In larch growth variations solar-type 22 years periodicity has also been noticed, especially profound after 1940.

An attempt to evaluate the influence of temperature and rainfall on the radial growth of *Pinus sylvestris* on Western Pomerania.

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The paper presents the results of dendroclimatological analyses of the annual increments of pine trees - *Pinus sylvestris* L. (the influence of air temperature and atmospheric rainfalls on radial growth). Additionally, an attempt has been made to answer the following question: in which part of the year do the climatic parameters have an important influence on the yearly growth of this species?

The material has been taken from five locations in Western Pomerania. For the statistical analysis between the climatic parameters (the average monthly temperature and the monthly total of atmospheric rainfalls - 14 values for each element: from August of the year preceding the growth to September of the current vegetation year in the period of 1948 - 1998 (50 years) taken from the nearest meteorological stations in Pomerania) and the radial growths