

Xylogenesis (wood formation) is one of the most important biological processes on Earth. Woody plants store atmospheric carbon during this process and are thus an essential player in the carbon cycle, and therefore in the interactions of the biosphere and the Earth's climate system. The course of xylogenesis is affected by many factors, the main factors include photoperiod, temperature and water availability. The significance and impact of individual factors on xylogenesis changes with time and place on Earth. The cambium, which by its division forms wood, enters the dormant and active phase during the year. As part of the changes in the activity of the cambium, rings are formed from which it is possible to read the conditions in which the tree was located during the formation of the given tree ring. This characteristic feature of wood is the subject of many studies and can be used to investigate the effects of climate change on xylogenesis.