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Influence of Climatic Type of Year on Beech and Scots Pine Eustress

Mariyana Lyubenova (1), Alexandre Chikalanov (), Peter van Bodegom (), Jens Kattge (), Silvia Popova (), and Plamena Zlateva ()

(1) "St. Kl. Ohridski" University of Sofia, Sofia, Bulgaria (ryana_l@yahoo.com), (2) University of Library Study and Information Technology, Sofia, Bulgaria, (ctmdevelopment@yahoo.com), (3) Institute of Environmental Sciences, Leiden University, Leiden, The Netherlands (p.m.van.bodegom@cml.leidenuniv.nl), (4) Max Planck Institute for Biogeochemistry, Jena, Germany, (jkattge@bgc-jena.mpg.de), (5) Institute of Systems Engineering and Robotics, Sofia, Bulgaria, (Popova_Silvia2000@yahoo.com), (6) Institute of Systems Engineering and Robotics, Sofia, Bulgaria, (plamzlateva@abv.bg)

The present study deals with the relationships of climate types and the periods with low radial stem growth of black pine and beech locations in Europe. The identification of climatic types (CT) and eustress caused CT, their relative participation in the period of 1901-2009 by locations, the manifestation of main adverse type, led periodically to reduction of tree ring width, as well as the comparison of obtained types by precipitations and the SPI classes were the subjects of investigation. The analyses demonstrated that despite the local differences, the stress impact of dry and wet years, especially if they are accompanied by the cold or hot regimes, is well expressed. The successive changes of climate types at least two years before the eustress year are also relevant. The application of climatic types to study the relationship with trees eustress is more applicable when there are no large deviations in temperatures or precipitations by years and locations.
The demonstrated holistic analyses are applicable for the forest areas monitoring and management.
Key words Pinus sylvestris L., Fagus sylvatica L., climatic type, SPI, eustress, SPPAM application, SPI