

Regional reasons of differences of reactions of plants in Central and Northern Europe

S.V. Schmidt

Immanuel Kant University of Russia, Geography and geoecology, Kaliningrad, Russian Federation (sv.schmidt@mail.ru)

The biotic parameters of the natural environment such as the terms of coming phenological phenomena of plants, the rate of metabolism reactions of plants react to the regional dynamic of the growth conditions (climate, seismicity) and can be used as indicators of environment. This work generalizes the published results for the regions of Northern and Central Europe.

In the work the synchronization of regional long-term changes in the reactions of plants with the climatic and seismic dynamics is proved. This paper contains test results revealing norm and stress reactions of various life-form plants.

The spectral, frequency and statistical analysis of the long-term data (air temperature) reveal the distinguishing of climatic dynamics in regions of different seismicity. In the zones of high seismicity is a little gradient changes of terms of coming phenological phenomena. The influence of seismicity on the temperature conditions of growth of plants, apparently, is the basic mechanism of synchronization of regional differences of reactions of plants to the environment.