Are the cosmophysical factors in the auroral zone involved in plant physiological activity fluctuations?

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The results of the special search for the plausible effects of some heliogeophysical events within magneto-active auroral zone (Apatity, $\Phi = 63.3^{o}$) which took place in mid spring of 2001 are presented. As an experimental basis for the work the earlier developed lab bioassay (Kashulin et al., 2001) was applied. The method suggests the uninterrupted detection of events of the environmentally induced transitions between two states of different energies and levels of physiological activity (dormancy $\rightarrow$ growth) in the plant dormant seeds. It is shown that the normally uniform random process of germination events for the large (N >2000) uniformed seed cohorts of herbaceous perennial plant species *Taraxacum officinale* was undergone the statistically significant deviations for the some temporal gaps during the monitoring. The follow comparison with time-course of available data for the current geophysical processes showed the significant temporal correlation with the some of geophysical events. Among the last we found that the galactic cosmic ray intensity fluctuations occurrences (Forbush decreases, GLE) resulted in the most intensive calendar data and diurnal time dependent germination disturbances. The disturbances observed were appeared as either sudden hyper rise or abrupt abatement in germination intensity rate within the different subpopulations of the experimental seeds cohorts. The diurnal pattern of germination intensity owed two maxima near 12.00 LT and 19.00 LT. The plausible relations of the found diurnal pattern in germination rate with peculiarities of magnetosphere is discussed. Magnetic activity and atmospheric pressure variations seemingly did not induce any direct influence on germination process.