«Geocosmical tropism» of plant Maranta leuconeura Fascinator

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The study of geocosmical affects on biosystems is presumed to be adequately represented by biological object. The first the plant **Maranta leuconeura «Fascinator»** was studed for this goal. Leafs of **Maranta leuconeura** possess of capacity to move in direction of the external agent (agents) of unknown nature. This movement is visible and it can be measured. We shown that dynamics of leaf movement manifests daily rhythm with maximum about 4-6 A.M. and minimum about 7-10 P.M. of local time. All leafs of plant under studies moved synchronously.

The leaf movement dependence on indoor and outdoor temperature, X,Y,Z – components of geomagnetic field (GMF), atmospheric pressure, the level of neutron count was studied. The significant correlation between geocosmical agents was found but dependence on temperature was weak. The most strong connections was found with neutron count and GMF variations. Signs of correlation are depended on geomagnetic activity: negative connection the leaf movement with neutron was during background geomagnetic activity and positive one was during geomagnetic disturbance (correlation coefficient -0.821, p ≤ 0.01 and 0.689; p ≤ 0.01 respectively).

Discovered dependence of daily dynamics of Maranta leuconeura «Fascinator» leaf movement on GMF variations and the level of neutrons permits to assume reactions of Maranta leafs as "geocosmical tropism". We believe that Marinata leuconeura «Fascinator» could be universal bioindicator of variation of geocosmical agents.