

The Assessment of the Vegetation's Condition and the Health State in the Forests of the Mountain Area of Cluj County, Using the Parameters from FutMon Network

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SUMMARY

Negative development of state forests and concerns at European level on forest monitoring were key reasons for intensive monitoring of forest ecosystem functions and processes in a large-scale network to help better understanding of cause-effect relationships. The FutMon Network is a systemic network of permanent survey with a density of one sample plot at 25600 ha (16x16 km) to assess and monitorization health of the forests and collecting information specific National Forest Inventory. Is that the network to monitorization forest condition provides information whose errors by statistical validity have insurance only for spaces big, hard to put the obvious on areas restricted. A survey FutMon is composed of the batch of 24 trees intended to 2009 evaluate the annual state of health (the network of monitoring European) and 4 areas of permanent sample plot specific National Forest Inventory. A permanent sample plot contents of three concentric circles with radii of 7.98 m, 12.62 m and 25 m, and two satellites - concentric circles made up of 1m and 1.78 m. The four centers of permanent sample plots were located in a square with side a 250 meters. In Cluj county have been located 5 such areas, all located in mountain area and they work in the sample plots have found in: inventory growth trees and determining their areas of research in the long-term; the assessment and monitoring health of trees in the areas searched; biodiversity assessment vegetation ecosystems; obtain databases and geographical format thematic elaboration GIS charts. The analysis, evaluation and supervision of all these forest environment components, gathered in the permanent sample plots, establish their influence on condition of vegetation that synthetic indicator of characterization of stability, functionally and productivity of forest. Further and harmonizing scientific information on a large scale is necessary for the development of models and scenarios for analysis of forest ecosystems response in various forms of stress with acting upon them and for the adoption of environmental policies linked these factors.

Keywords: forest monitoring, health state, circles, stands, sample plot, defoliation

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