THE UPDATING SYSTEM OF SUB-COMPARTMENT DATA FOR EFFECTIVE FOREST RESOURCE MANAGEMENT

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ABSTRACT—In order to meet the demand of modern forest resources management and data update, this paper analyses the reasons of the forest resource data changes in the forest resource information management, introduces the concept of changing event to describe the reasons of the changes, codes the events changing the sub-compartment data coding, and designs the spatio-temporal database structure of forest resource sub-compartments' data changes. The study includes the growth model of the Chinese fir and the Pinus massoniana and the growth rate of broad-leaved forest. This study designs the sub-compartment date update process and standards, the system function of update, and the forest sub-compartment data update system of the county forest resources management information system based on the geographical information system (GIS). The forest resource database can be updated by applying the annual changes data, so as to realize the dynamic management of the county forest resources.

Key Words: Forest resource, data update, spatio-temporal data, growth model, GIS