

Structure of Forest-steppe Vegetation of Small Khamar-Daban Foothills (Western Transbaikalia)

S. A. Kholboeva, B. B. Namzalov and M. G. Tsyrenova

Buryat State University, Smolina str. 24, Ulan-Ude, Russia

Abstract

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Correspondence:

tsyrenova2000@mail.ru

The characteristic aspects of the structure of vegetation of the forest-steppe of Khamar-Daban are studied. The authors made the detailed large-scale geobotanical map of vegetation (1:25000, 1:100000) on the basis of satellite imagery of different scales. The structure of forest-steppe differs in complexity in conditions of hilly and ridges eminences of a strip of the foothills, up to 1200 m high. These are mainly combinations of larch forest (*Larix sibirica*) shrub-grass with bunchgrass petrophyte communities and meadow steppe grass with part shrub communities. The combinations of ridges eminences are completely composed of mezocombinations in the form of combinations, but in concrete combinations micricombinations (complexes) different in their structure may join along with coenosis – tsenomer.

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Introduction

The aim of the present research was to identify patterns of spatial structure of vegetation of forest-steppe of array in mid-mountain Barun Burin-Khan of Khamar-Daban, in the areas Inzagatuy, in valley of the river Djida. The following tasks were set to achieve the objective: the description of vegetation of model key site with environmental characteristic, mapping for identifying heterogenic and homogenic elements, preparation of large-scale geobotanical map with the detailed legend.

Material and Methods

The descriptions of vegetation were made in summer in 2009 (more 80). For investigation of the spatial structure of vegetation, we used the combination of geobotanical descriptions and remote sensing data. We used Landsat TM data and multispectral high resolution images Terra

ASTER, working on decoding Satellite image of the given territory by classical approach. As a result detailed cartographical model of vegetation of the key site (1:25000, 1:100000) was made. The area of the key site is 3.25 km², height amplitude is 900-1200 m. above sea level.

The spatial heterogeneity of vegetation was clearly recognized by the contour work on decoding Satellite image. The numbers of geobotanical descriptions were put on Space image. As a result large-scale map of vegetation was made and its legend was created. We recognized both homogeneous and heterogeneous elements during the process of mapping. The last ones are regarded as territorial units or combination of vegetation (Sochava, 1979).

From apportionment homogeneous elements, the authors used dominant-determinant classification of vegetation (Vasilevich, 1984). Also during the analysis the ecological statuses