1st International Symposium on Mapping Asia Plants

Biodiversity Committee, Chinese Academy of Sciences
Several decades ago, the scale of geobotanical mapping was a more complex problem than today. The reason for this was that all maps were prepared manually on hard copies of topographic basis. The modern technologies significantly reduced the severity of this problem. The huge data sets on the plant distributions can be easily combined on map at any scale. The Khamar-Daban is a comparatively small ridge on the south of Baikal Siberia, but it’s a widely known area as an eastern outpost of South Siberian nemoral refugia complex. To understand the plant distribution patterns within the refugium we have performed large scale grid mapping of six relict plant species in the lower course of the Bolshoi Mamai River with adjacent parts of catchment areas of neighboring rivers. The grid size was 0.001°×0.001°, that equal to 111×70 m. In total, 3261 grids (25 km2) were screened. The results showed that nemoral relict species significantly differ in their altitudinal distribution, habitats and sensitivity to human impact. It corresponds to our analysis of distribution of 27 relict species in limits of the Khamar-Daban Ridge (Chepinoga et al., 2017), i.e. complex of species traditionally recognized as nemoral relicts includes plants of different ecology. The data collected in on the Khamar-Daban will be a part of more comprehensive project devoting to distribution of vascular plants in the Baikal Siberia. As a pilot project, we have digitalized 1284 grid maps from the “Flora of Central Siberia” (1979). Grid size in compendium (~28×36 km) is quite acceptable for small-scale mapping of species distribution. The collected data can be included in the project “Mapping Asia Plants” as a part of data set from Asian
part of Russia. The study was financially supported by the Russian Foundation for Basic Research (projects No. 16-05-00783a, 16-34-60135_mol_a_dk, 16-04-01246a, and 17-44-388084p_a) as well as by the Russian Science Foundation (project No. 17-74-10074).

**Keyword:** grid mapping; species diversity; relict plant species; Asian Russia

**Flora of vascular plants of Khabarovsk Krai in information and geoinformation databases**

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The flora of Khabarovsk Krai includes 2,616 species from 793 genera and 160 families. The aboriginal flora unites 2171 species from 793 genera and 160 families. The adventive complex is represented by 445 species from 257 genera and 57 families, which is 17% of the natural flora. Natural flora of the Khabarovsk Territory

To solve the problems of monitoring the vegetation cover of the Khabarovsk Territory in connection with its anthropogenic development and the dynamics of natural and climatic factors, an integrated system for knowledge and data formalization was developed; it is based on existing methodological approaches to floral analysis and is the basis for information and geoinformation databases.

The structure of databases consists of two blocks – attributive and spatial. The content of attributive and spatial data includes the following thematic layers: taxonomic position and representativeness; holonomic parameters (geographical distribution, structure of the range); distribution within the edge (number, area and availability of localities); ecological and biological parameters (biomorphological characteristics, vitality, occurrence, state of populations, etc.); a description of the habitat and its importance for the species (including belonging to ecocenotic and cenotic complexes) and the importance of the species for biocenosis; limiting factors; endemic and relict elements; protection status (for protected plant species); socio-economic and