

**DYNAMICS OF DIVERSITY AND PRODUCTIVITY OF PHYTOCOENOSIS OF ALAS STEPPE SLOPES IN  
CENTRAL YAKUTIA**

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**SUMMARY**

Present paper is a continuation of a series of publications on characteristic of vegetation fluctuations within alas depressions in Central Yakutia. The purpose of the study was the analysis of diversity and productivity dynamics of meadows in alas xerophytic habitats in a long-term cycle.

This study was carried out in 1988–2012 in study plots of alas steppe slopes phytocenosis, where plant communities are formed on insufficiently moistened permafrost pale solodized degraded steppe soils. The method of sample plots and Braun-Blanquet scale of abundance were used to evaluate diversity and productivity of alas steppe slopes phytocenosis. Descriptions were done within the area of 5 m<sup>2</sup>. Value of grass vegetation of above-ground biomass was estimated by the method of control sites of 1 m<sup>2</sup> in 4-replication in air-dry condition.

The following features of diversity and productivity dynamics of steppe slopes phytocenosis were revealed:

- 1) Plant species composition of steppe meadows is not permanent, interannual Jackard index of floristic similarity varies from 0.4 to 0.82.
- 2) Productivity of meadows has the big interannual fluctuations and varies from 2.8 to 14.3 c/ha, but, in a whole, tends to increase.

**Key words:** diversity, productivity, steppe slopes, alas, Central Yakutia.