

**EARLY STAGES OF A LONG-TERM POST-FIRE VEGETATION CHANGES
IN SIBERIAN FIR FORESTS OF SOUTHERN BAIKAL REGION
(BAIKAL NATURE RESERVE)**

© 2023. N.S. Gamova* **, E.A. Faronova*, Yu.N. Korotkov**, T.S. Koshovskii*,
T.E. Yazrikova*

**M.V. Lomonosov Moscow State University*

1, Leninskie Gory, Moscow, 119992, Russia. E-mail: bg_natagamova@mail.ru

***Baikal State Nature Biosphere Reserve*

34, Krasnogvardeyskaya Str., Tankhoy, Republic of Buryatia, 671220, Russia

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In this article we analyzed the early stages of long-term post-fire vegetation change in a burnt area of a Siberian fir forest. The study area is typical for the middle altitudes of the northern slope of Khamar-Daban Ridge; the wild fire was of a natural origin. We registered the post-fire changes in the floral composition and in the structure of the forest plant community. As a result of the fire, the structure of forest layers simplified, and the total number of species, as well as the species diversity of coenotic (eco-coenotic) groups of species decreased in the first years after the fire. We compared a post-fire forest plant community with an undisturbed one, and evaluated the participation of rare and Red Data Book plant species in the burnt area.

We established that wild fires in fir forests lead first to the complete death of a tree stand, and then to the restorative vegetation change, which, in our case, caused a change of conifer tree species to secondary small-leaved deciduous species. In the first years after the fire, the similarity coefficient of the floristic composition between the plant community of the burnt area and of the undisturbed forest did not exceed 0.5. The ranges of eco-coenotic groups of species also changed, making the Br group (taiga small herbs) dominant in all years. At the same time, some plant species of the burnt area were not recorded in the undisturbed forest, while the abundance of some rare plant species increased. The structure of the plant community in the burnt area became simpler as the number of layers, and their closeness / projective cover reduced. Within 5 years after the fire, the herb-dwarf shrub layer restored the general projective cover to the values typical for the undisturbed forest; projective cover of raspberry increased sharply; and the tree layer, formed with new growth, and the moss layer finally began to recover.

It is concluded that a single case of wild fire in a dark coniferous forest with a relatively small area of the burnt area does not cause irreversible degradation of the forest plant community. Taiga ecosystems retain the potential for restoration sufficient for a further proper and successful vegetation change.

Keywords: Khamar-Daban ridge, forest fires, Siberian fir forests, post-fire vegetation changes, rare plant species, coenotic (eco-coenotic) groups.

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