

## REGENERATION OF DARK CONIFEROUS SPECIES IN THE GROUPS OF *PICEA ORIENTALIS* (PINACEAE) DRYING IN THE TEBERDA NATURE RESERVE (WESTERN CAUCASUS)

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The paper presents the results of a survey of the groups of Eastern spruce (*Picea orientalis* (L.) Link) decline in the Teberda State Natural Biosphere Reserve, Western Caucasus. Mass drying of spruce from European spruce bark beetle (*Ips typographus*) was noted both in monodominant spruce forests and in mixed stands with *Abies nordmanniana* (Stev.) Spach and *Fagus orientalis* Lipsky. Dark coniferous species currently predominate among the regrowth in the sites of spruce drying, and the participation of deciduous trees is minor. Broadleaved species are present in the second layer in a half of the sample plots in small numbers, and do not have a noticeable effect on the number of coniferous regeneration. The fir regeneration is more uniform and stable as compared to the spruce. In the most of the sample plots the number of fir regrowth naturally decreases with maturing, while spruce has “bursts” of regeneration. The height and radial growth of the fir and spruce regrowth as well as their density and distribution over the area are discussed. It is shown that in 7 years after the beginning of the mass spruce drying in the Teberdinsky Nature Reserve, no more than 1/5 of the area of the drying groups is provided with a reliable regrowth of dark coniferous species. In the coming years, the regeneration of dark coniferous species will be replenished only by fir, since there are scarcely any generative spruce trees remain. In the future, provided being preserved from fire, part of the large spruce regrowth can become a source of spruce renewal, and the fallen dead wood can become a suitable substrate for young trees.

*Keywords:* *Picea orientalis*, decline of spruce, spruce drying, spruce regrowth, Teberda Nature Reserve

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