

Original article

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Problems of Conservation and Reproduction of Karelian Birch in Central Russia

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Abstract. *The article presents the silvicultural and biological features of Karelian birch, a unique form of white birch in the genus *Betula*, which is widely known for its patterned wood of high artistic value. A brief history of the study and cultivation of Karelian birch in Central Russia is given. Particular attention is paid to the problem of conservation and reproduction of the gene pool of this valuable form of birch, which for a number of reasons (unregulated logging, lack of natural regeneration, low competitiveness, etc.) is on the verge of extinction. A survey of preserved natural plantations, experimental crops and permanent forest seed plots of Karelian birch was carried out in the Kostroma forestry of the Kostroma region in 2021. Tall-stemmed forms are the most viable and have the largest sizes both in natural and artificial stands. Bushy and short-stemmed forms are the least viable, lag behind in growth, experience oppression, its fall under the forest canopy and dry out in the absence of silvicultural care. Conclusions are drawn about the need to continue research on valuable forms of birch in places of its natural growth and in preserved forest plantations, as well as to conduct an inventory and protect the habitats of valuable forms of birch as a habitat for valuable and rare plant species.*

Key words: *karelian birch, patterned wood, cultivation, target crops, forest seed base.*

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