

# The Boreal Forest of Russia: Opportunities for the Effects of Climate Change Mitigation

## **A. Filipchuk**

*Russian Research Institute for Silviculture and Mechanization of Forestry,  
Deputy Director for Science, Doctor of Agricultural Sciences,  
Pushkino, Moscow Region, Russian Federation, afilipchuk@yandex.ru*

## **N. Malysheva**

*Russian Research Institute for Silviculture and Mechanization of Forestry,  
Deputy head of Department, Candidate of Geographical Sciences,  
Pushkino, Moscow region, Russian Federation, nat-malysheva@yandex.ru*

## **T. Zolina**

*Russian Research Institute for Silviculture and Mechanization of Forestry,  
Category 1 Engineer, Pushkino, Moscow Region, Russian Federation, tzolina@gmail.com*

## **A. Yugov**

*Russian Research Institute for Silviculture and Mechanization of Forestry,  
Section Head, Pushkino, Moscow Region, Russian Federation, ayugov@yandex.ru*

**Keywords:** boreal forests, carbon sequestration, carbon emission (loss), carbon balance (budget)

*The article discusses the role of boreal forests in mitigating climate change. Taking into account knowledge about boreal forests in Russia and data of sectoral statistical reporting the estimation of carbon sequestration, emission and balance is made. The potential of boreal forests for climate change mitigation is much higher than previously thought. For the first time carbon sequestration, emission and balance in boreal forests of Russia are calculated and their dynamics for a long period of time are analyzed. The methods proposed by the authors to calculate the carbon balance in forests will improve the reliability of estimates for the sector, which includes forestry, in the reporting of the Russian Federation to the UN Framework Convention on Climate Change.*