2012 Forest condition report

Bulgaria

The 2013 forest condition survey in Bulgaria is conducted during the period July – August and comprises 5517 selected trees in 159 permanent sample plots. 3152 deciduous and 2365 coniferous trees are assessed. Observations on the defoliation, biotic and abiotic damage factors are carried out on the following coniferous tree species: *Pinus sylvestris* L., *Pinus nigra* Arn., *Picea abies* (L.*)* Karst. and *Abies alba* Mill., as well as on the deciduous tree species: *Fagus sylvatica* L., *Quercus frainetto* Ten., *Quercus petraea* (*Matt*.) Liebl., *Quercus cerris* L., *Quercus rubra* L., *Tilia platyphillos* Scop. and *Carpinus betulus* L.. The predominant part of the assessed trees has a degree of defoliation between 25 % and 66,5%. Compared to the 2012 survey, the percentage of the healthy and slightly affected by defoliation trees is decreased by 4,99%. The percentage of highly defoliated and dead trees remains the same - about 3%.

The observed deciduous trees show a slightly better condition compared to the coniferous. 64,37% of the observed deciduous and 59,18% of the coniferous trees have up to 25% defoliation (classes 0 + 1). The best condition of the coniferous tree species is determined for pine spruce (*Abies alba)* above 60 years of age, where 88,65% of the trees are assessed as healthy and slightly affected by defoliation, followed by norway spruce (*Picea abies)* – 84,46 %, also above 60 years of age. Compared to the previous year, in 2013 there is a slight increase in the number of assessed trees of *Picea abies* (up to 60 years) which are in classes 0+1 of defoliation, but their condition remains very good – 80% of the trees are healthy and slightly affected by defoliation. The number of the healthy *Pinus sylvestris* and *Pinus nigra* trees is decreased almost 2 times in comparison with 2012, but generally, the condition of these two tree species remains the same as in 2012. In the best crown condition of the monitored deciduous tree species is red oak (*Quercus rubra)* up to 60 years of age, where 100% of the trees are in 0 and 1 class of defoliation. *Carpinus betulus* (above 60 years of age) and *Fagus sylvatica* trees are also in a very good condition. The number of dead *Quercus petraea* and *Quercus frainetto* trees (up to 60 years of age) is increased by 4,28% and 2,48%, respectively, but generally the condition of these two tree species is better than in 2012.

The detected biotic damages and their causes do not lead to significant changes in the condition of the observed trees in 2013.

The description of the spring aspect of grass phytocenoses, the types of natural habitats of European importance and presence of protected plant species which are found in the Level I sample plots continued in 2013.