

Forest phytopathology development and new hazards for Russian forests

A. M. Zhukov – doctor of biological sciences, senior specialist,

Russian Scientific Research Institute for silviculture and mechanization of forestry

Yu. I. Gninenko – candidate of biological sciences, head of laboratory of forest protection from invasive and quarantine organisms, *Russian Research Institute for silviculture and mechanization of forestry* manager of the laboratory for forest protection against invasive and quarantine organisms

Various phytopathogenic micro-organisms play a large role in the life of forest communities and caused their illness often are of great importance to forestry. In recent years, the annual area of fungal diseases on Russian territory ranged from 0.8 to 1.2 million. HA, the area lost for this reason forests is about 2% of the total area of their dying. The largest areas of hotbeds of disease are found in the forests of southern Siberia, the Volga region and in the central part of Russia. Among the diseases the leading place is occupied by the boot and stem rot (about 45%), the nekrozno-cancer (up to 40%), the root of the sponge (about 15%) with the first group of diseases dominates the European part of the country, bacteriosis and nekrozno-cancer-in the Urals and Siberia.

In recent years, increasingly invasive pathogens penetrating the forest communities from other continents. Since the beginning of the 21st century in Russia had such dangerous pathogens micromycetes as *Grosmania (Ophiostoma) aoshima*, which together with its vector *Polygraphus proximus* shrinking of Siberian fir over large areas of Siberia, as calling the deaths, *pseudoalbidus Hymenoscyphus ash Activator vitla boxwood Cylandocladium buxicola*.

Penetrating and less dangerous pathogen, for example, micromycetes powdery mildew *Erysiphe flexuosa* Buckeye or Exciter Sch?tte have pine needles *Lophodermium nitens*. The process of the emergence of new invasive species in the forests cannot be stopped, so the will appear all the more invasive fitopatogeny, some of which may be caused by diseases of trees and bushes plants.

Important is the Organization and management of large-scale monitoring of the emergence of new diseases in the forests of the country and the fastest possible implementation of phytosanitary analysis of each identified invasive organism. But other than that, there is also possible in a shorter time frame, conducts research to develop measures to protect from new diseases.

Key words: forest phytopathology, forest diseases, invasive organisms.