

DOI: <https://doi.org/10.37162/2618-9631-2021-4-112-133>

The influence of the COVID-19 first wave on the European ecosystem / Krivosheev V.V., Stoliarov A.I. // Hydrometeorological Research and Forecasting, 2021, no. 4 (382), pp. 112-133.

The results of analytical studies are presented, which show that restrictive measures for reduction of SARS-CoV-2 propagation speed and the incidence of the COVID-19 pandemic on the territory of Western Europe and the Russian Federation have led to a significant reduction of anthropogenic load on the natural environment and a considerable improvement of environmental conditions for the main types of contaminants. At the same time there is a dramatic growth of total ozone in the troposphere during the period of restrictions almost for all studied territories. It is revealed that after finishing the restrictive measures the level of air contamination reached its initial point: by September in Western Europe and by October in the European part of Russia. The calculations demonstrated that poor air quality aggravates the consequences of COVID-19, and a significant contribution is made by the PM_{2.5} concentration of fine solid particles, which can penetrate deeper into the human lungs and exacerbate the course of respiratory diseases.

Keywords: COVID-19, ecology, tropospheric conditions, satellite information, morbidity level and air quality

Fig. 6. Ref. 32.