

PROJECT INFORMATION

Project title: Automatic monitoring of narrow-leaved ash (*Fraxinus angustifolia* Vahl) forests by remote sensing methods and Copernicus data

Project ID: 273

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PROJECT DESCRIPTION

One of the project's main goals is to develop a prototype algorithm for automatic monitoring of narrow-leaved ash forests based on advanced remote sensing methods using space technologies. The development of an automatic system for monitoring the decay of narrow-leaved ash will enable the collection of accurate and up-to-date spatial data on the condition of ash. The total area of forests and forest lands in the Republic of Croatia is 2,759,039 ha, which is 49.3% of the country's land area, according to which it is in the group of forested European countries. Monitoring the health condition of forests, especially the intensity and dynamics of tree damage, is necessary for forest management. The European Space Agency's Copernicus program with its satellite segment (Sentinel satellites) provides free access to high spatial and temporal resolution satellite images. These data can be used by automatic methods based on machine learning to quickly detect the condition of narrow-leaved ash and other species and make damage maps. The developed system will enable the implementation of spatial and temporal analyzes and thus will accelerate the quality of monitoring and management of forests and forest infrastructure.

Further information at <https://rs4est.geof.hr/en/>