

FORECAST OF THE MAJOR INSECT PESTS SPECIES PRESENT IN THE CLUJ FORESTRY DISTRICT FOR THE YEAR 2023

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The phytosanitary condition of forests depends on the intensity of attacks produced by phytophagous insects, which lead to a significant percentage reduction in annual tree growth, a reduction in the percentage of timber and the destruction of fruit and seeds. The insect stings and chewing are gateways for phytopathogenic fungi, all of which contribute to the dieback of trees before they reach the age of exploitation. Besides phytophagous insects, other biotic factors (plant pathogens) and abiotic factors (climatic, soil and anthropic factors) play an important role in the evolution of forest health. Detection and forecasting of the insect forest pests plays an important role in forest protection works. The research was carried out in the production unit IV Baciș Șard located in the Someșan Plateau, „Dealurile Clujului and Dejului” sub-unit, on the technical left side of the Nadeș Valley, left affluent of the Someșul Mic, being managed by the Cluj Forestry District belonging to Cluj County Forest Administration, as part of the National Forest Administration, Romsilva. The purpose of this work is to establish the forecast of forest defoliators within the Cluj Forestry District for the year 2023, having as main objectives: field visits to some of the forest compartments within the Cluj F.D. and sampling (eggs, branches, pupae). Identification of pest species reported in the field, evaluation of population density for each identified species according to development stages (adults, eggs, larvae, pupae) and establishment of the probable defoliation percentage. Regarding the results, were: *Lymantria dispar* L.– spongy moth, *Tortrix viridana* L.– European oak leafroller or the green oak moth, *Operophtera brumata* L.– winter moth *Erannis defoliaria* Cl.– The mottled umber. From the performed surveys and the results obtained, it is observed that the defoliator *Lymantria dispar* L. is in the third and fourth gradation phases in all surfaces. From the studies and analyses carried out on the defoliator *Tortrix viridana* L. it is expected to produce very low defoliation in all the analysed areas. Surveys performed on *Geometridae* show that the probable percentage of defoliation produced by them is between 2.1-2.9% (very weak defoliation). As a conclusion, from the data obtained, following the analyses carried out, we can say that for the year 2023 the main defoliators of the deciduous forests encountered within the Cluj Forestry District will not cause significant damage, and the areas covered by the investigations were included in the supervision area.

Keywords: *damages, defoliating insects, deciduous forests, forest pests, forecast.*