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ECOLOGICAL RECONSTRUCTION OF SOME WIND-BLOWN FOREST SURFACES FROM THE BARDĂU U.P.II, VIȘEU FOREST DISTRICT

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In recent decades, storms have damaged considerable amounts of wood in European forests, resulting in substantial economic losses. These storms cause felling, which means any mechanical damage that affects a tree or a grove as a result of the action of the wind. Windfall can provide abundant breeding material for the spruce bark beetle (Ips typographus), thereby increasing the likelihood of the beetle population.

The main purpose of this study is the analysis of the abiotic reasons for the production of windfalls in several landscaping units within the Vișeu Forest Bypass. The biotic factors that can occur as a result and the ways to restore these affected stands were also studied. The study was carried out in the II Bardău Production Unit, 6 landscaping units were selected, within which demolitions occurred in 2017 and 6 landscaping units within which demolitions occurred in 2022.

As a result of this study, a number of 156.07 ha of trees affected by wind felling resulted, totaling a number of 1836, trees and a volume of 1764.56 m^3. It is worth appreciating the fact that, in the specific case of the stands studied, the felling intervention represented a major disturbance in the structure and functioning of the ecosystems, but without catastrophic consequences or significant damage.

The main causes that led to these disturbances are meteorological, seasonal and the structure of the stands. If at high speeds neither the beech nor the ground have resisted, even less will the spruce monocultures resist, with large trees per hectare and not covered by care work. In each parquet, before planting, it is necessary to establish the nerve points for wind and snow knockdowns, i.e. the places with excess moisture, bends, slopes, edges and edges exposed to the wind as well as hearths with rot (after stumps). In the case of these stands, it is recommended to consider improving the stands from the perspective of composition, increasing the resistance and resilience of the forest and extracting the trees that need to be extracted from the forest.

Keywords: arboretums, ecological reconstruction, wind gusts.