

An Acoustical Diagnosis of a Shaft-Wood Phyto-Pathogenic Damage of Sequoiadendron giganteum (Lindl.) Buccholz

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Abstract : Using a supersonic shaft-wood tomography, the evaluation of a shaft-wood phyto-pathogenic damage level of *Sequoiadendron giganteum* (Lindl.) Buccholz was prosecuted. The digital bivariate reflections of the shaft tissue damage were obtained, the characteristics of comparative parameters of the wood-decay degree were given. The investigation results allowed to show up the role of some edaphic factors in their affection on a vital condition and the level of destructive processes while shaft tissue damaging of *S.giganteum*. It was pinned up that soil consolidation, and hydro-morphication equally make for a phyto-pathogenic damage of plants. While soil consolidation negative acting the shaft-wood damage is located in an underneath of a shaft. In the conditions of an enlarged hydro-morphication a tissue degradation runs less intensively, the destructive processes more active spread in a vertical section of a shaft. The use of a supersonic tomography method gives wide possibilities to diagnose a shaft-wood phyto-pathogenic damage.

Keywords : *Sequoiadendron giganteum* (Lindl.) Buccholz, supersonic tomography, diagnosis, phyto-pathogenic damage, a vital condition

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