

***Lecanicillium aphanocladii* isolated from “Tengu-no-Mugimeshi” in Mt. Kurohime, Nagano Prefecture, central Japan**

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Purpose: “Tengu-no-Mugimeshi” is a microbial mass, and it has been recognized from mountainous areas in the volcanic zone of Chubu region, central Japan. It consists of several to 10 types of bacteria and fungi, and is composed of different microbes depending on the production area. “Tengu-no-Mugimeshi” used in this study was collected from Mt. Kurohime, northern part of Nagano Prefecture, in 1939 was sealed in glass bottles and preserved at Terao Elementary School, Nagano City. We report here a fungus isolated from this “Tengu-no-Mugimeshi” specimen.

Methods: Small portions of the sample were suspended with the Winogradsky solution and diluted to 10 and 100 times. Of each diluted suspension were spread on three isolation media (PDA, MEA, CYA) and incubated at 25°C for 7 days. Its colony characteristics and micro-morphology were observed under the same conditions in three media (PDA, MEA, PCA).

Results and conclusions: One verticillium-like fungus was isolated. Colonies on three media were 26-36 mm diam, very raised, white, reverse gray red. It produced diffusing reddish purple pigment only on PDA. Conidiogenous cells produced singly in pairs verticillate or in dense irregular clusters on prostrate hyphae, at first flask-shaped, tapering into thread-like neck, 3.1-9.2*0.7-2.3 μm. Conidia solitary, oval to subglobose, 2.4-3.9*1.5-2.3 μm.

As a result of multi-gene (SSU, LSU and TEF) phylogenetic analyses, the isolate formed the same cluster as *Lecanicillium aphanocladii* and was supported with a high bootstrap value.

From these micro-morphological characteristics and the multigene phylogenies, it was identified as *Lecanicillium aphanocladii*.