

Materials for the fungus flora of Japan (47)*

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Albophoma yamanashiensis isolated from a forest soil in Yamanashi Prefecture is described as a new genus belonging to Nectrioidaceae, Coelomycetes.

Key Words—*Albophoma*; *Albophoma yamanashiensis*; Coelomycetes; Nectrioidaceae; new genus.

101. *Albophoma* Kobayashi, Masuma, Omura et Watanabe, gen. nov.

Nectrioidaceae, Sphaeropsidales, Coelomycetes, Deuteromycotina. Colonies niveis, applanatis in PDA, LCA vel MA, pycnidiiis numerosis facientibus; pycnidiiis niveis, globosis, carnosus, leptodermis, parietem tenum prosenchymaticum habentibus; conidiophoris paniculatis, ex hyphis intimis efferentibus; conidiis hyalinis, unicellularibus, minutis, globosis.

Species typica: *Albophoma yamanashiensis* Kobayashi, Masuma, Omura et Watanabe, sp. nov.

Colonies white, flat on PDA, LCA and MA, producing numerous pycnidia; pycnidia pure white, globular, fleshy; pycnidial wall thin, prosenchymatous; conidiophores born from inner hyphal tissue of pycnidia, producing conidia holoblastically, sometimes with annellation; conidia unicellular, hyaline, globular, small.

Type species: *Albophoma yamanashiensis* Kobayashi, Masuma, Omura et Watanabe.

Albophoma yamanashiensis Kobayashi, Masuma, Omura et Watanabe, sp. nov. Fig. 1(A–E), 2(F–H)

Coloniis applanatis, niveis in PDA, LCA vel MA, post 7 die ad 25°C 20 mm diam crescentibus, pycnidiiis numerosis facientibus; pycnidiiis niveis, globosis, 100–180 µm diam, carnosus et molliusculus, leptodermis, pariete prosenchymatico, 5–10 µm incrassato praeditis; conidiophoris paniculatis, ex hyphis intimis efferentibus; conidiis unicellularibus, hyalinis, globosis, 0.8–2 µm diam.

Holotype: FPH-7325 (cultura sicca, ex FERM BP-4406, isolata ex solo, Shosenkyo, Yamanashi Pref., Jun. 1991, leg. R. Masuma) in herbario TFM (Forestry and Forest Products Research Institute, Ibaraki 305) conservatus.

Colonies flat, white on PDA, LCA and MA, about 20 mm in diam after a week at 25°C, producing

numerous pycnidia; pycnidia pure white, globular, 100–180 µm in diam; pycnidial wall thin, fleshy and soft, prosenchymatous, 5–10 µm in thickness; conidiophores arising from the inner hyphae of pycnidium, producing conidia holoblastically, sometimes with annellation; conidia unicellular, hyaline, globular, 0.8–2 µm in diam. Under SEM and TEM thick basal scar or protuberant and fragile frill-like structure are observed at the base and on the surface of conidia.

Specimen: TFM: FPH-7325 (dried culture colony specimen from FERM, BP-4406, isolated from soil collected at Shosenkyo, Yamanashi Pref., June 1991, by Rokuro Masuma).

Note: The fungus could grow at temperatures from 8.5 to 33°C, with optimum at 20–30°C, and at pH values from 2 to 10. At initial growth stage of the colony, the fungus produces *Acremonium*-type conidia, while pycnidia are recognized after 7 to 10 days of incubation at 20–30°C. Under the scanning electron microscope and transmission electron microscope, the conidium clearly showed a thick basal scar or protuberant and a frill-like decoration on the surface of the wall. No genera with such fleshy and white pycnidia, and small globular conidia with frill-like decoration on their surface and a thick basal scar, has hitherto been described in the Nectrioidaceae, Sphaeropsidales. Therefore, a new genus was established for the present fungus.

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* (46): Hosoya, T. et al., Trans. Mycol. Soc. Japan 34: 429–432, 1993.

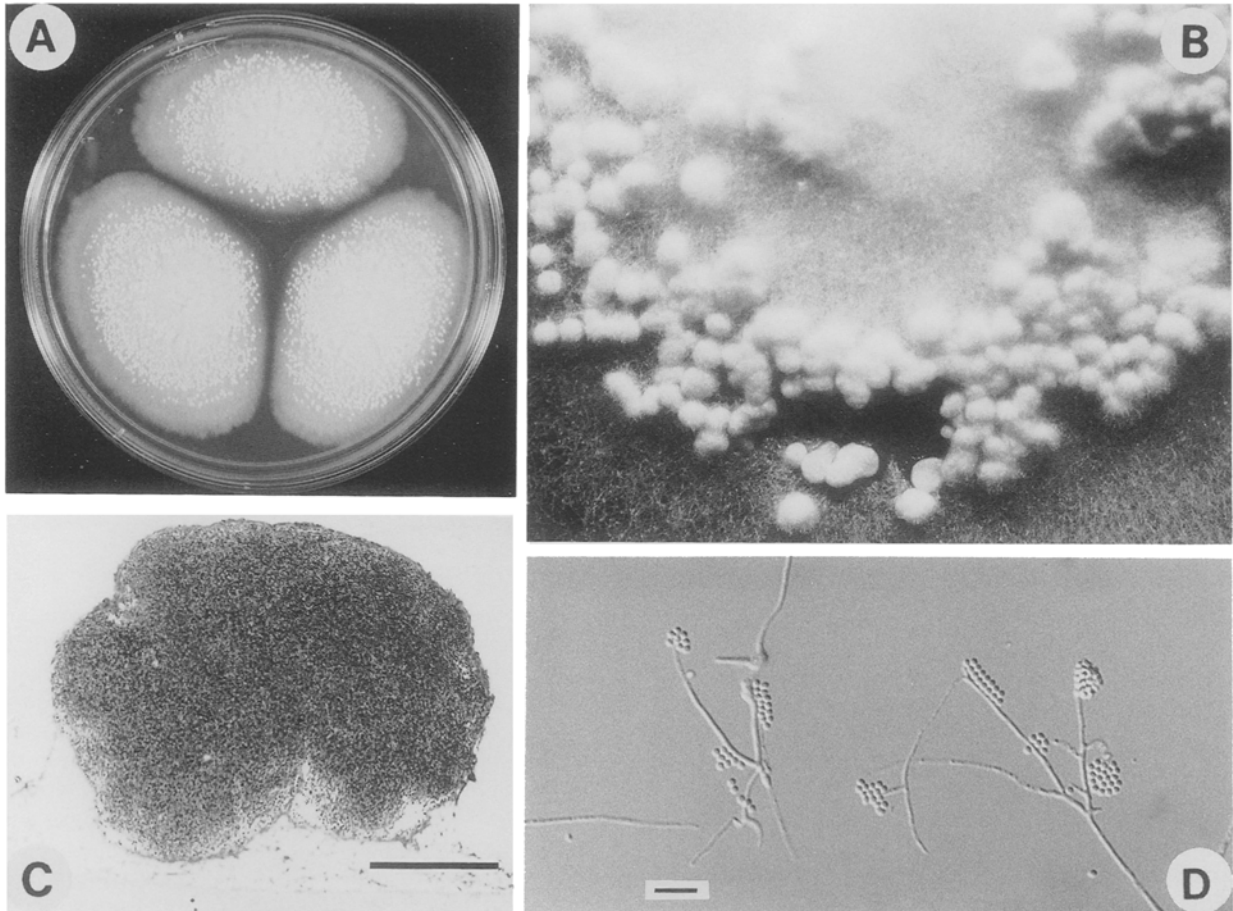


Fig. 1. *Albophoma yamanashiensis* gen. et sp. nov. (1) A: Three-week-old culture on PDA plate producing many pycnidia. B: Magnified view of a part of producing pycnidia. C: Cross section of thin-walled pycnidium having numerous minute conidia. D: *Acremonium*-type conidia in the early stage of culture. (Scales: C=500 μm , D=10 μm .)

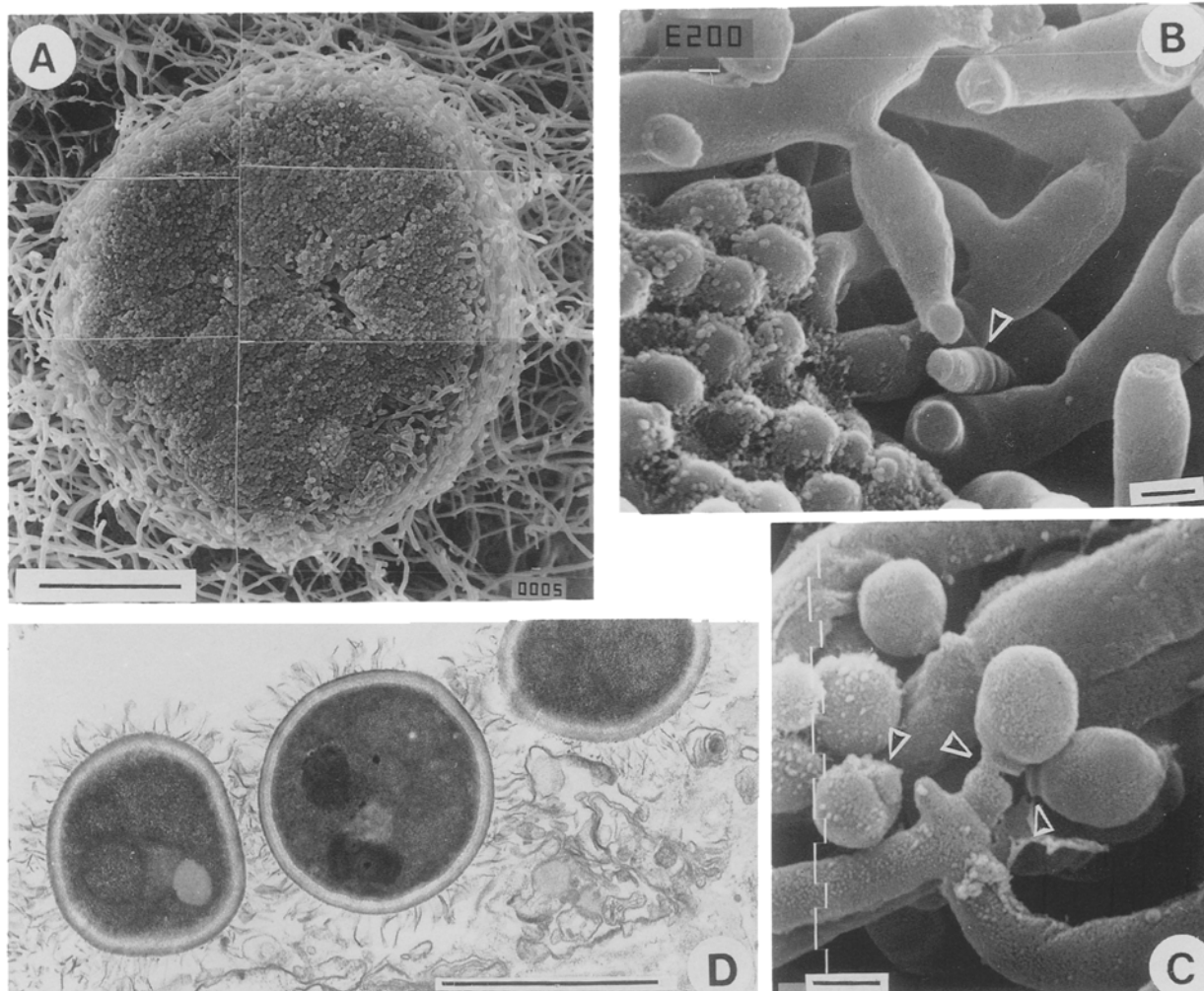


Fig. 2. *Albophoma yamanashiensis* gen. et sp. nov. (2) A: Prosenchymatous structure of pycnidial wall and mass of conidia within pycnidium. B: Conidia covered with fragile fills and a conidiophore showing annellation (arrow). C: Conidia with thick basal scar or protuberant (arrows) and a conidium showing aleurio-type separation. D: Conidia with many frills on their wall surface. (A-C: Under SEM and D under TEM; scales: A=40 μm , B-D=1 μm .)