

○子囊菌 *Hamigera avellanea* の一新変種 (森永 力・池田克裕・能美良作) Tsutomu MORINAGA, Katsuhiko IKEDA & Ryosaku NOMI: A new variety of *Hamigera avellanea* (Ascomycetes)

A new variety of *Hamigera* isolated from soil in Japan, is described and illustrated. It is characterized by white to grayish white ascomata.

Hamigera avellanea (Thom & Turesson) Stolk & Samson in *Persoonia* 6: 341, 1971.

Status conidialis. *Penicillium avellaneum* Thom & Turesson in *Mycologia* 7: 284, 1915. ≡ *Merimbla ingelheimense* (van Beyma) Pitt in *Can. J. Bot.* 57: 2394, 1979.

var **alba** Morinaga, Ikeda & Nomi, var. nov.

Ascomata alba vel griseo-alba, globosa vel subglobosa, 120-200 μm diametro.

Habitat: in e solo, Japonia.

Holotypus: No. 4181, HUT (Hiroshima Univ., Dept. Ferment. Technol.), isolatus e solo, "Sado insula, Niigata Pref.", Japonia, 15. VII. 1981.

Colonies on malt agar, attaining a diameter of 8 cm in 7 days at 28°C, composed of a basal felt with white to cream vegetative mycelia. Reverse in red brown shades. Ascomata ripening in 14 days at 28°C. Ascomata non-ostiolate, soft, white to grayish white, globose to subglobose, 120-200 μm in diameter; ascomatal wall consisting of loose thin hyphae. Asci produced singly, globose to ellipsoidal, 18-22 \times 12.5-18 μm , evanescent, 8-spored, sometimes with a short stipe. Ascospores ellipsoidal, 7-8 \times 5-6.2 μm , pale yellow, ornamented with mushroom-like projections. Conidiophores smooth-walled, 40-200 \times 4-5 μm , arising from aerial hyphae. Metulae 2 to 4 in a whorl, 8-10 \times 4-5 μm . Phialides cylindrical, 9-12 \times 2.5-3 μm . Conidia in chains, hyaline to pale brown, subglobose to ellipsoidal, smooth-walled, 4-5 \times 3-3.5 μm .

Production of ascomata is more pronounced on oatmeal agar, on which numerous white to grayish white ascomata may be developed.

Stolk & Samson (1971) erected the genus *Hamigera* which differed from *Talaromyces* in producing asci singly rather than in chains. But, Pitt (1979) emphasized the manner of ascus formation is not so reliable to distinguish *Hamigera* from *Talaromyces*. We gave our support to Stolk & Samson's opinion and proposed a new variety, *Hamigera avellanea* var. *alba*. The new variety is closely similar to *H. avellanea* var. *avellanea* except the color of ascomata and differs from *H. striata* in respect to the surface ornamentation of

ascospores.

On the other hand, Pitt & Hocking (1979) pointed out that *T. avellanus* formed a unique anamorphic state described as *Merimbla* with characteristics differing from both *Aspergillus* and *Penicillium*. This separation is considered to be unsatisfactory for reasons that *Hamigera avellanea* var. *avellanea* HUT 4147 produced anamorphic state with both *Penicillium*-type (Pl. X 1) and *Merimbla*-type (Pl. X 2). And, anamorphic state of *H. avellanea* var. *alba* is also shown in Pl. X 3-4, presenting both types. According to Pitt & Hocking (1979), *Merimbla* is distinguished from *Penicillium* in the color of colonies. But, we recognize that morphologically *Merimbla* resembles *Penicillium* and that there are many species with light-brown colonies in *Penicillium*. Therefore, the anamorphic state of *Hamigera* seems to belong to the genus *Penicillium*.

Literature cited

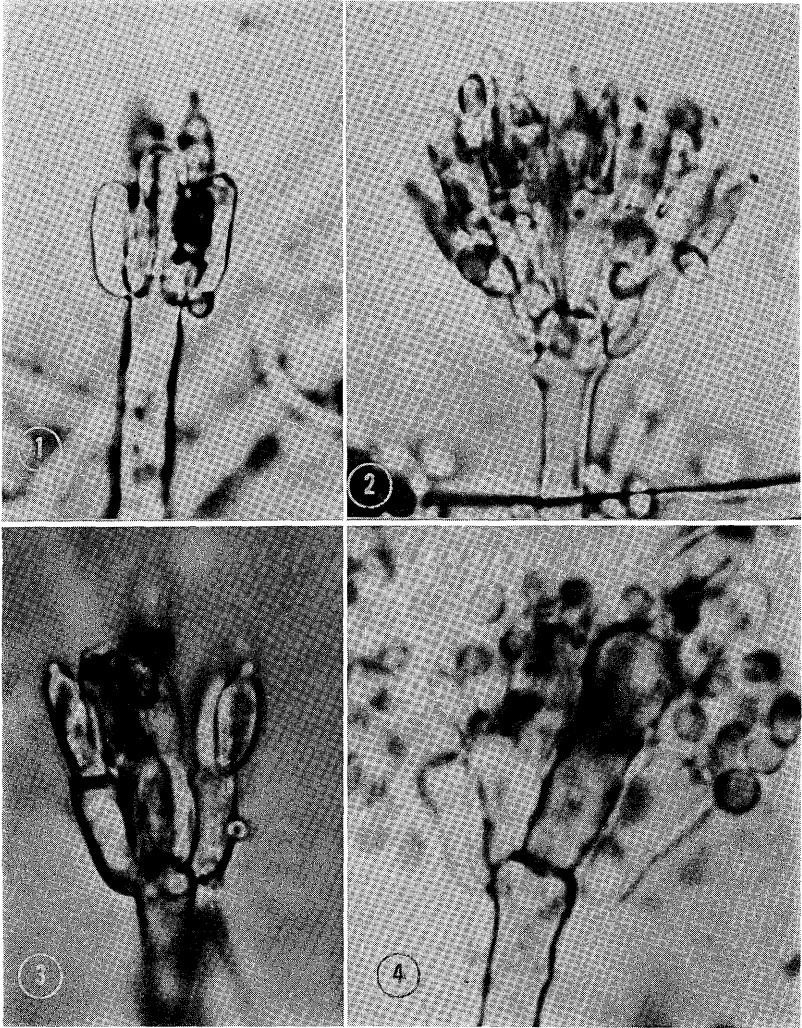
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Explanation of plate X

1. *Hamigera avellanea* var. *avellanea*, HUT 4147. *Penicillium*-type anamorphic state.
2. *Hamigera avellanea* var. *avellanea*, HUT 4147. *Merimbla*-type anamorphic state.
3. *Hamigera avellanea* var. *alba*, HUT 4181. *Penicillium*-type anamorphic state.
4. *Hamigera avellanea* var. *alba*, HUT 4181. *Merimbla*-type anamorphic state.

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佐渡の土壌より *Hamigera* 属に属する一菌株を分離し、既知種 *H. avellanea* と子のう果の色において全く異なることより、*H. avellanea* の新変種、*H. avellanea* var. *alba* を提案した。(広島大学工学部醸酵工学教室. Dept. Ferment. Technol., Fac. Engineer., Hiroshima Univ., Japan)



T. MORINAGA, K. IKEDA & R. NOMI: *Hamigera avellanea*