Tsutomu MORINAGA*, Hidenori NITTA** & Kyubei MINOURA*:

Some microfungi isolated from soil of Southeast Asia (1)

(Plate 1)

As interesting fungi in the distribution, the following four species1), Acrophyialophora levis, Cephaliophora irregularis, Gamsia dimera and Scolecobasidium variabile, were isolated from soil of Southeast Asia.

1) Acrophyialophora levis Samson et Tariq Mahmood in Acta Bot. Neerl. 19: 807 (1970) (Fig. 1)

Colonies cultured on malt extract agar at 28°C for 2 weeks attaining

Fig. 1. Acrophyialophora levis Samson et Tariq Mahmood. a: Phialides. b: Phialoconidia.

** Domoto Food Co., Numatacho, Tomo 1816-3, Hiroshima. 堂本食品(株), 広島市若田町付1816の3.

1) All these four species are preserved as living cultures: HUT (Faculty of Engineering, Hiroshima University, Hiroshima, Japan) This work was presented at 21st Annual Meeting of the Mycological Society of Japan, Okayama Univ., Okayama (1977).
8.3 cm in diameter, floccose, white to pale buff. Reverse black. Vegetative mycelium hyaline, smooth, 2-4 \( \mu \)m wide.

Phialides solitary, formed directly from vegetative mycelium, swollen at base, flask-shaped, tapering at tips, hyaline to pale green, smooth, 4-18×2-3 \( \mu \)m. Phialoconidia catenulate, oval, ellipsoidal or lemon-shaped, hyaline, smooth, 4-9×2.5-4 \( \mu \)m.

Hab. from soil of Singapore: HUT 5129

This isolate coincides with the original description, except the diameter of colonies cultured for 2 weeks. This is the first record from Southeast Asia.

2) **Cephaliohpora irregularis** Thaxter in Bot. Gaz. 35: 158 (1903) (Fig. 2; Plate I-1, 2)

Colonies cultured on malt extract agar at 28°C for 2 days attaining 5-6.5 cm in diameter, floccose, rosy buff (Rayner, 4YR/7.0/5.0).

Conidiophores hyaline to pale salmon, smooth; mostly short 30-40 \( \mu \)m but up to 110 \( \mu \)m. Conidiogeneous cells 15-32 \( \mu \)m wide. Botryoblastoconidia very variable in shape, pyriform or turbinate, hyaline to pale reddish brown, smooth, 1- or 2-septate, 18-40×12-30 \( \mu \)m. Protuberant hilum 1.5-4 \( \mu \)m wide.

Hab. from soil of Bangkok: HUT 5111

This isolate is distinguished from *C. tropica* by having one or two septa into conidia (Crook, et al., 1955). This species has been known only from Japan in Southeast Asia (Tubaki, 1956).

![Fig. 2. Cephaliohpora irregularis. Thaxter. a: Conidiogenous cell, b: Botryoblastoconidia.](image)
3) **Gamsia dimera** (Gams) Morelet in Ann. Soc. Sci. nat. Archeol. Toulon 21: 105 (1969) (Fig. 3; Plate 1-3, 4)

Colonies cultured on malt extract agar at 28°C for 2 weeks attaining 2.5 cm in diameter, velvety, greenish grey (Rayner, 8GY/6.0/2.0). Reverse olivaceous black (Rayner, 3BG/3.0/2.0).
Vegetative mycelium hyaline, smooth, 2-5 μm wide. Conidia of two kinds; (a) aleurioconidia produced directly from vegetative mycelium, solitary or clustered, obpyriform, brown, smooth, truncate at base, often with a longitudinal germ slit, 5-10×2-3 μm; (b) annelloconidia catenulate, ellipsoidal, hyaline, smooth, often with one septum, 7.5-12.5×4-5 μm.

Hab. from soil of Hongkong: HUT 5123

Gamsia was erected by Morelet based on a single species G. dimera. This species was found only from Belgium for once (Gams, 1968).

4) Scolecobasidium variabile Barron et Bush in Can. J. Bot. 40, 83 (1962) (Fig. 4; Plate 1-5, 6)

Colonies cultured on potato-dextrose agar, floccose, grey olivaceous (Rayner, 6Y/4.0/1.5).

Conidiophores hyaline, becoming pale olive at mature stage, 4-25×1.5-2.5 μm. Sympoduloconidia ellipsoidal to cylindrical, olivaceous, verruculose, 1- to 3-septate (most frequently 3), 9-18×2.5-4.5 μm.

Hab. from soil of Hongkong: HUT 5120

This isolate coincides with the original description. It has been known only from India in Southeast Asia.

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References

Explanation of Plate I
1, 2: CephalioPhora irregularis (one scale: 2.5 μm); 3, 4: Gamsia dimera (one scale: 2.5 μm); 5, 6: Scolecobasidium variabile (one scale: 1 μm)

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東南アジアにおける菌類分布を知る目的の一端として1976年3月から4月にかけて香港、バンコク、シンガポールにおいて土壌152試料を採集し、多数の糸状菌を分離同定した。そのうち比較的分離頻度の少ない菌類を記載した。