NOTE

Myxomycetes of Taiwan XXII. The Genus *Trabrooksia*

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ABSTRACT: The genus *Trabrooksia* is rarely discovered in the field. In this paper, we describe and illustrate the species, *Trabrooksia applanata*, from corticolous habitats, which is a new record of Taiwan not only in species but also in genus.

KEY WORDS: Didymiaceae, Myxomycetes, Taiwan, taxonomy, *Trabrooksia*.

INTRODUCTION

Trabrooksia H.W. Keller, a monotypic genus, was established by Keller (1980). The genus is characterized by the fruiting bodies which are limeless and usually plasmodiocarpous, occasionally sporangiate, with glossy to iridescent peridium, and subparallel arrangement of tubular capillitial threads. As known to the present, all the specimens of the genus are from corticolous habitats (Keller, 1980; Yamamoto, 1998; Novozhilov et al., 2003).

In the survey of corticolous myxomycetes in Taiwan, two specimens of *Trabrooksia* were harvested in moist chamber cultures. One was from barks of *Pinus luchuensis* with sporangiate fruiting bodies, the other from *Illicium arborescens* with plasmodiocarpous fruiting bodies. This genus is a new record to Taiwan. Characteristic examination for the fruiting bodies of these specimens were made by light and scanning electron microscopy as described previously (Liu et al., 2002).

TAXONOMIC TREATMENTS

Trabrooksia applanata H.W. Keller, Mycologia 72: 396. 1980. Fig. 1

Fructification scattered, sporangiate or pulvinate and plasmodiocarpous, circular to elongate in profile, sessile, flattened in the plasmodiocarpous form, grayish brown, iridescent. Plasmodiocarps less than 50 µm high, (0.20-) 0.28-0.45 mm in diam., (0.32-)0.43-1.20 mm in length. Hypothallus lacking. Sporangia sessile, somewhat globose, 0.30-0.50 mm in diameter, 175-350 µm high. Hypothallus inconspicuous. Peridium membranous, transparent, smooth, without lime or other depositions, somewhat rugulose, evenly pitted and papillate under SEM (*Y.F. Chen223*), irregularly dehiscent. Capillitium purplish brown to purplish red, pale yellowish under transmitted light; the threads transparent, hollow, formed by the invagination of the peridium, nearly perpendicular to upper and lower peridia, 2-3 µm in diam., sparsely branched, often funnel-shaped or 2-4 forked at the terminal ends, usually perforate at the forking parts. Spores purplish black in mass, violaceous brown by transmitted light, globose to subglobose, 10.0-11.5 µm in diameter, spinulose, the spinules mushroom-like when viewed under SEM. Columella lacking. Plasmodium not observed.

Specimens examined: Taipei Co.: Shulin, Ganyuan, on bark of *Pinus luchuensis*, *BY568M130b*, Feb. 23, 1990 (moist-chamber culture: Jan. 17-Feb. 23, 1990). Pingtung Co.: Nanjenshan forest, on bark of *Illicium arborescens*, *Y.F. Chen223*, June 8, 1996 (moist-chamber culture: Apr. 8-June 8, 1996).

Distribution: America, England, Japan, Taiwan.

One of our specimens (*BY568M130b*) has typical sessile sporangia with abundant capillitial threads which are sparsely branched and often funnel-shaped or forked at the terminal ends, the other (*Y.F. Chen223*) pulvinate and plasmodiocarpous with tubular capillitial threads which are unbranched, occasionally forked, and more or less funnel-shaped at the ends. Both of our specimens are on the bark of living trees, harvested from moist-chamber cultures, with distinctive characteristics fulfill the diagnostic features for *T. applanata* (Keller, 1980), except that the fruiting bodies and spores are in the range of small limit. It is a new record to Taiwan.

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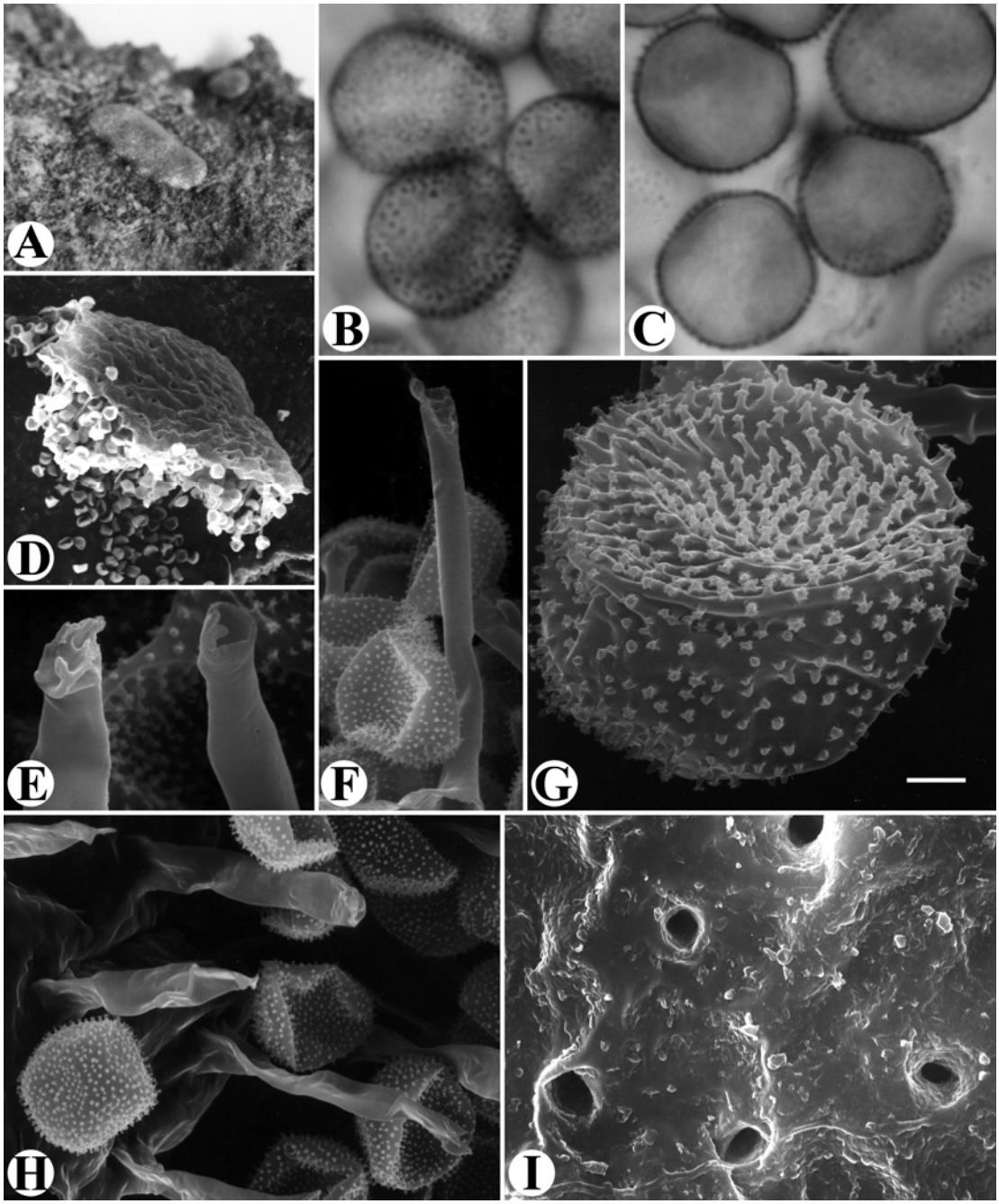


Fig. 1. ***Trabrooksia applanata.*** **A: Fruiting bodies. B: Spores, surface view. C: Spores, marginal view. D: A broken sporangium, by SEM. E: Apical features of the capillitial threads, by SEM. F: One capillitial thread, by SEM. G: Spore surface markings, by SEM. H: Spores and the hollow capillitial threads, by SEM. I: Outer surface of peridium, showing the pits, by SEM. Scale bar: A = 325 µm; B-C = 4 µm; D = 35 µm; E = 0.8 µm; F, H = 3.5 µm; G = 1 µm; I = 4.5 µm.**

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臺灣黏菌(二十二)：布魯氏黏菌屬（*Trabrooksia*）

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摘要：布魯氏黏菌在野外很少被發現，本篇描述扁平布魯氏黏菌 (*Trabrooksia applanata*)，此為臺灣新紀錄種，同時也是臺灣新紀錄屬。

關鍵詞：鈣皮黏菌科、真黏菌綱、臺灣、分類、布魯氏黏菌屬。

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