



**Morphological and Molecular Characteristics of *Hypocrella*
scutata and *Hypocrella schizostachyi* Isolates in Thailand**

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Abstract

Surveys for *Hypocrella scutata* and *Hypocrella schizostachyi* were from 7 wildlife sanctuaries and national parks in Thailand. *H. scutata* was found in two survey sites, Sirindhorn Peat Swamp Forest and Hala-Bala Wildlife Sanctuary, Narathiwat. *H. schizostachyi* was not found from other survey sites. *H. scutata* at Sirindhorn Peat Swamp Forest was found on the upper surface of *Syzygium* plants (*Syzygium tumida* and *Syzygium oblatum*). The *H. scutata* occurrence on *S. tumida* is higher than *S. oblatum*. The *H. scutata* occurrence on *S. tumida* does not depend on the level of branch but *H. scutata* occurrence on *S. oblatum* depends on the level of branch. Two hundred and twenty five *H. scutata* specimens were collected from Sirindhorn Peat Swamp Forest and one specimen from Hala-Bala Wildlife Sanctuary. Forty five *H. scutata* isolates (46.4%) were from ninety seven fresh mature specimens. An anamorph stage of *H. scutata* was seen in some cultures. Most true *Hypocrella* species produce an *Aschersonia* state with tapering fusoid conidia both in nature and in culture. Cultural studies with light and scanning electron microscopy revealed that *H. scutata* and *H. schizostachyi* have irregular-shaped conidia with rounded ends. This work found no evidence of an *Aschersonia* state in nature nor in culture for these two taxa. The optimal temperature for growth of *H. scutata* and *H. schizostachyi* was between 20-25°C. *H. scutata* and *H. schizostachyi* grew on potato dextrose agar (PDA) better than malt extract agar (MA), glucose yeast extract agar (GYA) and corn

meal agar (CMA). The phylogenetic studies based on partial DNA sequence of 28S ribosomal gene indicated that *H. scutata* SSC 57 and *H. schizostachyi* NHJ 4547 did not place in the same clade as the type species, *H. discoidea* NHJ 5004.

Morphological evidence and molecular studies suggest that *H. scutata* and *H. schizostachyi* should not belong to the genus *Hypocrella*. However, the other genes (18S, ITS1-5.8S-ITS2 rDNA gene) should be further studied for stronger support.