Goidanichiella fusiforma sp. nov. from palm fronds in Brunei and Thailand

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Goidanichiella fusiforma sp. nov. was identified from collections of decaying palm fronds in tropical rainforests in Brunei and Thailand. The new taxon is described and illustrated, and compared with similar taxa.

Key words: anamorphic fungi, palm fungi, systematics, taxonomy.

Introduction

We are studying the fungi occurring on tropical palm species and have described several species new to science (Yanna et al., 1998a,b, 1999; Goh et al., 1999). Collections of fungi on fronds of palms in tropical rainforests yielded a new species of Goidanichiella and this taxon is described and illustrated in this paper.

Taxonomy

Goidanichiella fusiforma K.D. Hyde, Yanna, Pinnoi & E.B.G. Jones, sp. nov. (Figs. 1-7)

Etymology: referring to the fusiform conidia.

Mycelium immersa et superficialia. Conidiophora macronemata, mononemata, solitaria, erecta, recta vel paulo flexuosa, simplicia, laevia, brunnea, 240-300 × 6-9 μm, apicem subhyalina, apicem inflata 8-12 μm. Cellulae conidiogenae monoblasticae, determinatae, discretae, cylindricae, hyalinae vel pallid brunneae, 11-23 × 2-3 μm. Conidia acrogena, aggregata, hyalina, fusiformes, aseptata, laevia, 9-11 × 2.5-3 μm.


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mononematous, solitary, erect, branched at the apex forming stipe and head; stipe straight or flexuous, swollen at the apex, smooth, cylindrical, brown to dark brown, paler towards the apex, 240-300 × 6-9 μm (x̄ = 255 × 8 μm, n = 25); apex forming a swollen head, 8-12 μm (x̄ = 10 μm, n = 25), bears primary branches which themselves bear secondary branches arranged penicillately (Figs. 1, 6). Conidiogenous cells monoblastic, determinate, terminal, discrete, cylindrical, hyaline to pale brown, borne at the ends of secondary branches, 11-23 × 2-3 μm (x̄ = 12.5 × 2.5 μm, n = 25) (Figs. 2-4, 6). Conidia enteroblastic, acrogenous, solitary, aggregated in slimy heads, hyaline, fusiform, aseptate, smooth, 9-11 × 2.5-3 μm (x̄ = 9.5 × 2.8 μm, n = 25) (Figs. 2-5, 7). Conidial secession schizolytic.
Colonies on PDA very slow growing, attaining a diameter of 4-5 cm in 5 months at 25 C, pale brown, texture silky, flat, colouring agar pale brown; reverse colour unchanged.


Habit: Saprobic on fronds of Eleiodoxa conferta (petiole), Oncosperma horridum (rachis) and Salacca affinis (rachis).

Known distribution: South East Asia (Brunei and Thailand).

Notes: Goldanichiella was reviewed by Gams et al. (1990) and a single species G. barronii W. Gams, Steiman & Seigle-Murandi was accepted. Goldanichiella sphaerospora Matsush. had been invalidly published and the
type material lost. *Goidanichiella fusiforma* is distinct from *G. barronii* in producing relatively large, fusiform conidia (9-11 × 2.5-3 μm).

The specimen from Thailand had larger conidiophores (205-520 μm long, 10-17.5 μm diam.) with a narrower swollen head (5-7.5 μm) and slightly shorter conidiogenous cells (9-12 × 2.5-3 μm) and slightly longer conidia (11-14 × 2-3 μm, $\bar{x} = 11.9 \times 2.7$, n = 25). As the width of the conidia and conidiogenous cells are similar and the lengths overlap with those of the Brunei specimens, we are of the opinion that the Thailand specimen does not require separate species status.

**Key to species of Goidanichiella**

1. Conidia globose 3-4 × 2-3 μm, or allantoid, 4-6.5(-7) × 1.4-2 μm .......................... *G. barronii*
1. Conidia relatively large, fusiform, 9-14 × 2-3 μm .......................... *G. fusiforma*

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**References**


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