

## ***Aniptodera triseptata* sp. nov. (Halosphaeriales) from submerged wood in freshwater**

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**Abstract** — *Aniptodera triseptata* sp. nov. is described from wood submerged in a freshwater stream in a tropical rainforest of Brunei. The species has many characteristics found in *Aniptodera* species: hyaline, soft-walled, papillate ascomata, thin-walled asci without a indistinct apical apparatus, and catenophyses, and its inclusion in the genus is discussed. The new taxon is illustrated with interference light micrographs.

***Aniptodera* / freshwater fungi / Halosphaeriales / new species / taxonomy**

**Résumé** — *Aniptodera triseptata* sp. nov. est décrite ; isolée de bois submergés, dans un courant de forêt tropical humide (Brunei). Cette espèce présente de nombreux caractères la rapprochant du genre *Aniptodera* : ascocarpes clairs, à paroi tendre et présentant une papille ; asques à paroi mince, sans appareil apical distinct ; présence de caténophyses. La nouvelle espèce est illustrée par des photographies en microscopie interférentielle.

***Aniptodera* / dulçaquicole / Halosphaeriales / espèce nouvelle / taxonomie**

### INTRODUCTION

We have been investigating the fungi that decay wood submerged in streams in the tropics (Goh & Hyde, 1999; Ho *et al.*, 1999), and describe in this paper a new taxon collected in a stream in a tropical rainforest in Brunei. The taxon is characteristic of the Halosphaeriaceae, although with the exception of *Aniptodera*, *Fluviatispora*, *Halosarpheia*, *Nais* and *Pseudohalonectria* (Hyde, 1994; Hyde *et al.*, 1999) most halosphaeriaceous species occur in marine habitats (Hyde *et al.*, 2000). The placement of this species in *Aniptodera* and its resemblance to other species in the genus is discussed.

### TAXONOMY

#### ***Aniptodera triseptata* K.D. Hyde, sp. nov. (Figs 1-12)**

Ascomata ca. 180 × 66 µm, primum immersa, demum superficialia, hyalina, coriacea; papilla ostioli brevis, periphysata. Peridium 18-30 µm crassum, pluristratis cellularum globosarum, hyalinarum, crassitunicatarum compositum. Catenophyses sparsae, cellulis rotundatis ad 15 × 12 µm magnis compositae. Asci 75-120 × 15-18 µm, octospori, fusiformes ad obclavati, breviter pedicellati, unitunicati, apice applanato apparatu apicali annuliformi, tenui, inconspicuo, ca. 1-5 µm diam., aliquantum persistente instructo. Ascosporae 30-39 × 4-5 µm, 2-3-seriatae, fusiformes, 3-septatae, hyalinae, parietibus laevibus.

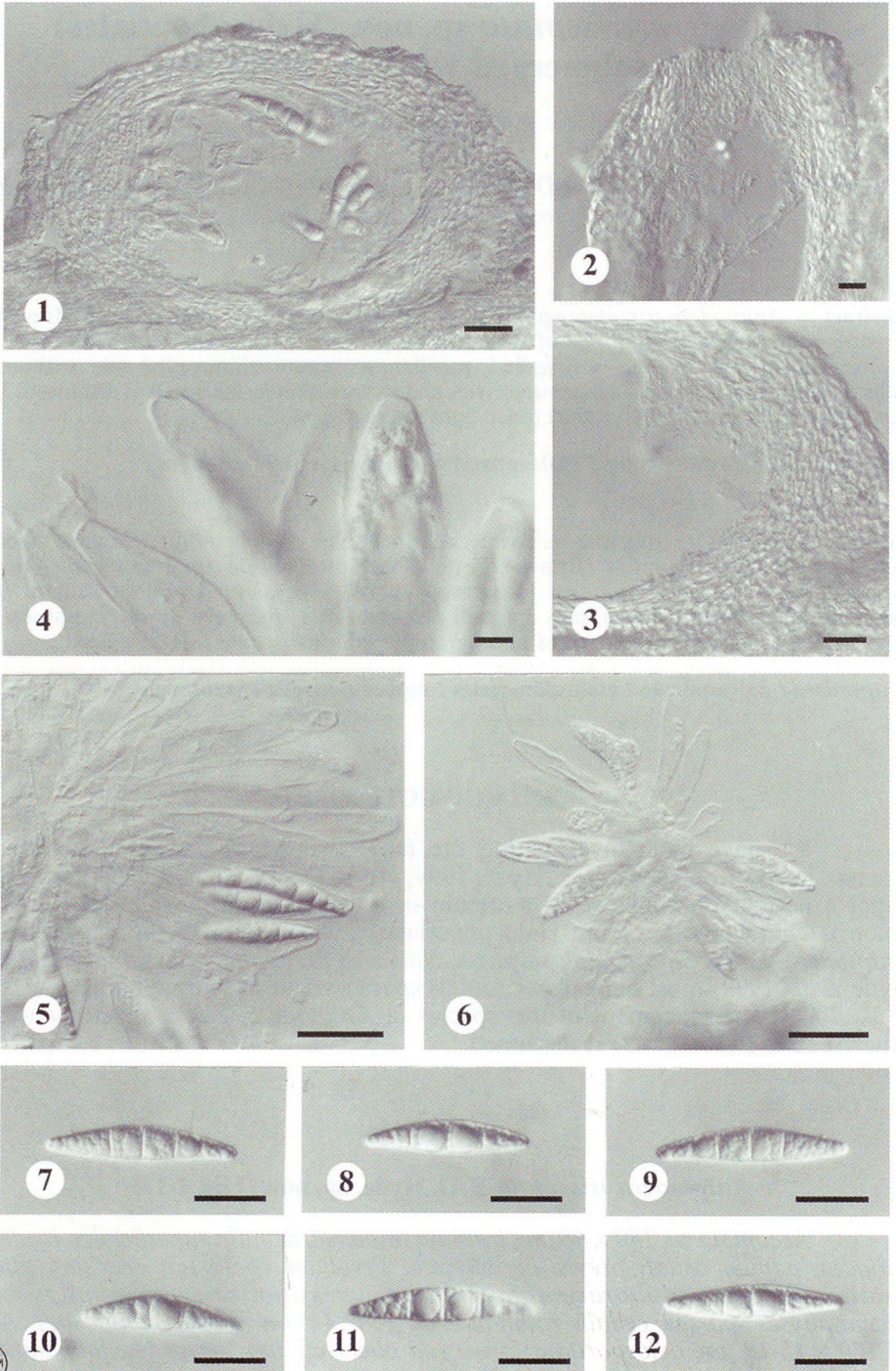


Fig. 1-12. *Aniptodera triseptata* (from holotype). 1: Section of ascoma. 2: Section of neck. 3: Peridium. 4-6: Asci. 7-12: Ascospores. Bars: 1, 2, 4, 7-12 = 10  $\mu\text{m}$ ; 3, 5 = 20  $\mu\text{m}$ ; 6 =  $\mu\text{m}$ .

Etymology: from *tri* and *septata* meaning 3-septate

Ascomata ca.  $180 \times 66 \mu\text{m}$ , immersed becoming superficial, hyaline, coriaceous, with a periphysate short neck. Peridium 18-30  $\mu\text{m}$  wide, comprising several layers of globose, hyaline, thick-walled cells. Catenophyes sparse, comprising rounded cells, up to  $15 \times 12 \mu\text{m}$  wide. Asci 75-120  $\times$  15-18  $\mu\text{m}$ , 8-spored, fusiform to obclavate, short pedicellate, unilocular, apically flattened, with a thin faint apical ring, ca 1-5  $\mu\text{m}$  diameter, somewhat persistent. Ascospores 30-39  $\times$  4-5  $\mu\text{m}$  ( $\bar{x}$  =  $35.15 \times 4.8 \mu\text{m}$ ,  $n = 20$ ), 2-3-seriate, fusiform, 3-septate, hyaline, smooth-walled.

Holotype: BRUNEI DARUSSALAM, Temburong, on submerged wood in stream in rainforest, 29 August 1997, K.D. Hyde (HKU (M) 6594). (No culture was obtained despite several attempts).

Notes: This species could be included in *Aniptodera* or *Halosarpheia*, or another genus could be erected to accommodate it. Hyde *et al.* (1999) outlined the confusion surrounding *Aniptodera* and *Halosarpheia*. They provided provisional guidelines to distinguish *Aniptodera* from *Halosarpheia*. In *Aniptodera* they considered ascomata to be mostly light coloured, asci to be persistent with a refractive apical thickening and simple pore, with retraction of the plasmalemma below the apex, and ascospores to be relatively thick-walled with or without appendages and hyaline. *Halosarpheia* was considered to differ as ascomata are mostly dark coloured, with early deliquescing asci that lack a pore, and lack retraction of the plasmalemma below the apex, and ascospores which are thin-walled, always appendaged and hyaline. The new species has somewhat persistent asci with a thin apical thickening and no obvious pore, indistinct retraction of the plasmalemma at the apex, while ascospores are thin-walled and lack appendages. It could therefore be argued that *Aniptodera* nor *Halosarpheia* can adequately accommodate this taxon. However, to avoid further confusion and introduction of further new genera I consider that this species should be accommodated in *Aniptodera* for the time being. This species is unique in *Aniptodera* in having fusiform, 3-septate ascospores.

**Acknowledgements.** The University of Brunei Darussalam is thanked for permission to collect fungi in Brunei. H. Leung are thanked for technical assistance. Christian Scheuer is thanked for providing the Latin translation.

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