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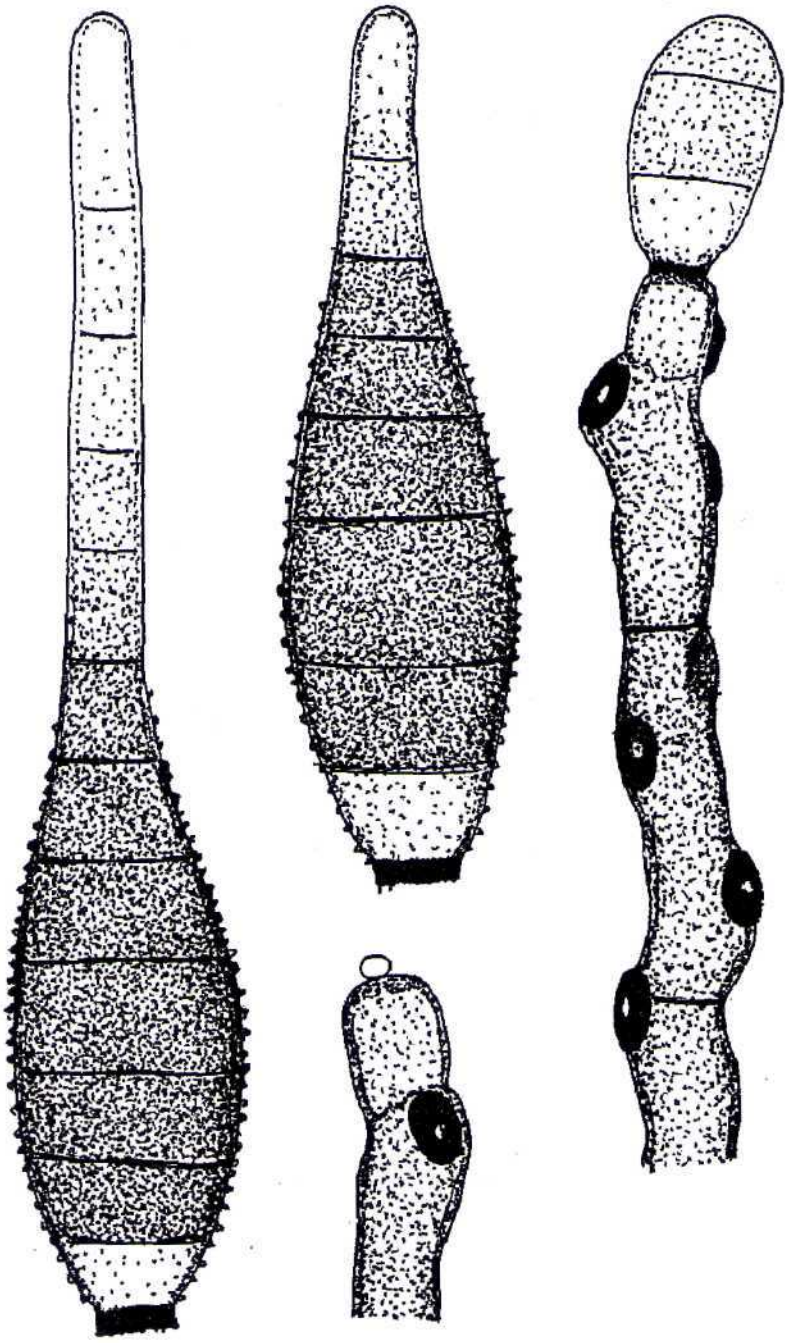
A JOURNAL ON TAXONOMIC BOTANY, PLANT SOCIOLOGY AND ECOLOGY



REINWARDTIA

12(4)

REINWARDTIA

A JOURNAL ON TAXONOMIC BOTANY,
PLANT SOCIOLOGY AND ECOLOGY

Vol. 12(4): 261 - 337, 31 March 2008

Correspondece on The Reinwardtia journal and subscriptions should be addressed to
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REINWARDTIA
Vol 12, Part 4, pp: 277 – 279

ANOTHER NOTE ON PODOCONIS MEGASPERMA BOEDIJN (HYPHOMYCETES)

Received October 11, 2007; accepted October 25, 2007

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ABSTRACT
RIFAI, M.A. 2008. Another note on *Podoconis megasperma* Boedijn (*Hyphomycetes*). *Reinwardtia* 12 (4): 277–279. — *Exosporium megaspermum* (Boedijn) Rifai and *Exosporium ampullaceum* (Petch) M.B.Ellis are transferred to *Neopodoconis* Rifai, a newly created genus extracted from *Exosporium* Link based on the nature of the true septation of their rostrate conidia. Two new combinations, *Neopodoconis ampullacea* (Petch) Rifai and *Neopodoconis megasperma* (Boedijn) Rifai, accordingly are proposed.

Keywords: *Hyphomycetes*, Java, *Exosporium megaspermum, Exosporium ampullaceum, Neopodoconis*

ABSTRAK
RIFAI, M.A. 2008. Sebuah lagi catatan tentang *Podoconis megasperma* Boedijn (*Hyphomycetes*). *Reinwardtia* 12 (4): 277 – 279. — *Exosporium megaspermum* (Boedijn) Rifai dan *Exosporium ampullaceum* (Petch) M.B.Ellis dipindahkan ke *Neopodoconis* Rifai, sebuah marga baru yang dipisahkan dari *Exosporium* Link karena kodrat penyekatan sejati konidiumnya yang bermoncong. Sebagai akibatnya, dua kombinasi baru, *Neopodoconis ampullacea* (Petch) Rifai dan *Neopodoconis megasperma* (Boedijn) Rifai, diusulkan.

Kata kunci: *Hyphomycetes*, Java, *Exosporium megasperma, Exosporium ampullaceum, Neopodoconis.*

INTRODUCTION

Inspite of the its euseptate conidia and poorly developed stroma, in 1975 *Podoconis megasperma* Boedijn was transferred to *Exosporium* Link (Rifai 1975), influenced by the fact that the similar and closely related species *Exosporium ampullaceum* (Petch) M.B. Ellis was also classified there. In recent years, however, it has been shown that the nature of spore septation is an important taxonomic character useful in distinguishing genera of *Hyphomycetes* (Subramanian 1992, McKenzie 1995). Similarly Goh, Hyde, Ho & Yanna (1999) relegated *Dictyosporum prolificum* Damon to *Cheiromyces* Berk. on account of its distoseptate conidia.

Since it is felt that as circumscribed by Ellis (1961, 1971, 1976) and presently adopted (Carmichael, Kendrick, Conners & Sigler 1980, Kirk, Cannon, David & Stalpers 2001) the genus *Exosporium* represents a heterogeneous assemblage of species—so much so that some of them had been previously classified as *Corynespora* Gussow and *Helminthosporium* Link by Hughes (1958), and containing discordant elements such as *Exosporium pterocarpi* M.B. Ellis and *Exosporium stilbaceum* (Moreau) M.B. Ellis which have swollen conidiophore apex bearing numerous, crowded, neither thickened nor blackened pores of conidial scars—it is consequently proposed that a new genus be erected to accommodate *Podoconis megasperma* and *Exosporium ampullaceum*. No specimen of *Exosporium occidentale* Sutton and *Exosporium ramosum* M.B. Ellis are available for study, but judging from the descriptions and illustrations of their rostrate conidia (Ellis 1976) these two species could very well belong to this new genus.

Neopodoconis Rifai, *gen. nov.*

Fungi Imperfecti, *Hyphomycetes*. *Coloniae* effusae, fuscae, pilosae. *Mycelium* immersum, ex hyphis ramosis, septatis, pallide brunneis, levibus compositum. *Conidiophora* macronemata, mononemata, erecta, recta vel flexuosa, simplicia, brunnea, laevia, septata. *Cellae conidiogenae* polytreticae, in conidiophoris incor-poratae, terminales vel intercalares, sympodiales, cicatricibus atris praedita. *Conidia* acropleurogena, obclavata, basi conicotruncata, apice rostrata, laevia vel verruculosa, septata, brunnea.

Species typica: *Neopodoconis ampullacea* (Petch) Rifai.

Fungi Imperfecti, *Hyphomycetes*. *Colonies* effuse, dark brown, hairy. *Mycelium* consist of immersed, branched, pale brown, smooth walled, septate hyphae. *Stromata* poorly developed,

consisted of loosely arranged polygonal to elongated cells. *Conidiophores* macronematous, mononematous, erect, straight or flexuous, unbranched, brown, smooth walled, septate. *Conidiogenous* cells polytretic, integrated, terminal and later intercalary, elongated sympodially, blackly cicatricated. *Conidia* acropleurogenous, obclavate to broadly obclavate, smooth walled or verruculous, euseptate, brown but much paler towards the apex, with protruding truncate dark scar at the base and distinctly rostrate at the apex.

Type species: *Neopodoconis ampullacea* (Petch) Rifai.

Neopodoconis ampullacea (Petch) Rifai, *comb. nov.* — Fig. 1A.

Helminthosporium ampullaceum Petch in *Ann. R. bot. Gard. Peradeniya* 7: 319. 1922 (basionym). — *Exosporium ampullaceum* (Petch) M.B. Ellis, *C.M.I. Mycol. Pap.* 82: 32, fig. 17. 1961; *Demat. Hyphomyc.*: 403, fig. 275D. 1971.

Colonies effused, dark blackish brown to black, hairy. Mycelium immersed in the substratum, composed of branched, septate, pale olivaceous brown to olivaceous brown, smooth walled, 2–5 μm thick hyphae. Stromata poorly developed, immersed, brown, about 25 μm wide by 50 μm deep and consist of polygonal and elongated cells. Conidiophores arising singly or in groups of two's or three's from the upper cells of stromata, simple, straight or flexuos, cylindrical, brown to dark brown, pale just below the apex, smooth walled, septate, up to 300 μm long, 10–13 μm thick, sometimes swollen up to 18 μm at the base. The first conidium develops through a thin area or 'pore' in the middle of the apical dark thickening, and after it has fallen the conidiophore wall splits laterally below the scar, the conidophore grows upwards pushing the old scar to one side; a second conidium is formed through a pore in the middle of the newly constituted apex. The process is repeated several times so that many thickened and blackened conidial scars appear laterally on the upper part of the conidiophore. Conidia straight or flexuous, obclavate, becoming rostrate, sometimes smooth walled, but usually verruculose, basal cell subhyaline, other cells brown or dark brown but becoming paler towards the apex, with a thick, black, protruding truncate scar at the base, 5–20-septate, 80–150 (up to 220 according to Ellis 1961) μm long, 16–22 μm thick in the broadest part, tapering to 4–7 μm near the apex.

DISTRIBUTION: Java, Ceylon, Ghana, Sierra Leone.

NOTE: This is a new record for Java.

SPECIMENS EXAMINED: West Java. Bogor, Kotabatu, on dead stem of *Clerodendron splendens*, February 2006, *M.A. Rifai s.n.*; Curug Nangka Waterfall, Ciapus, on unidentified dried stick, April 2006, *N. F. Wulandari 61* (all in BO).

Neopodoconis megasperma (Boedijn) Rifai, *comb. nov.* — Fig. 1B.

Podoconis megasperma Boedijn in *Bull. Jard. Bot. Buitenz.* III, 13: 133, fig. 3/15, 4/5, 7. 1933 (basionym). — *Exosporium megaspermum* (Boedijn) Rifai in *Reinwardtia* 9: 233, fig. 1. 1975.

Colonies widely effused, dark brownish black to black, finely hairy. Mycelium mostly immersed in the substrate, consisted of much branched, septate, pale brown to brown, smooth walled, 1.8–4.5 μm diam. hyphae. Stromata poorly developed, immersed, composed of very few layers of polygonal and elongated cells. Conidiophores arise singly or at the most in a group of two's or three's, cylindrical, unbranched, straight or rarely flexuous, dark brown to reddish brown and paler towards the slightly swollen apex, up to 480 μm long by 8–11.5 μm diam., often enlarged to about 18.5 μm diam. at the base, septate, smooth walled. The outer wall of the conidiophore is slightly thickened and dark at the apex and after the first conidium which develop through a pore in the centre of this thickened apex has fallen, the conidiophore grows out laterally below the scar splitting the side wall and pushing the scar to one side, then growing for some distance before forming the second conidium at the newly constituted apex. Conidia maturing acrosporously, broadly obclavate, occasionally almost turbinate or subfusoidal, rostrate, with truncated dark scar at the base, smooth walled, dark reddish brown but paler towards the apex, 4–7 septate with the second cell from below largest, 60–90 μm long by 20–28.5 μm wide at the widest part, tapering to 3–4.5 μm near the apex.

DISTRIBUTION: So far known only from West Java.

SPECIMENS EXAMINED: West Java. On dried stems, Cibodas Nature Reserve, April 1930, *Boedijn 292, 333, 366* (BO 11373, lectotype), *Boedijn 515*; ibid., December 1930, *Boedijn 945*; ibid., August 1931, *Boedijn 1597, 1599* (all in BO).

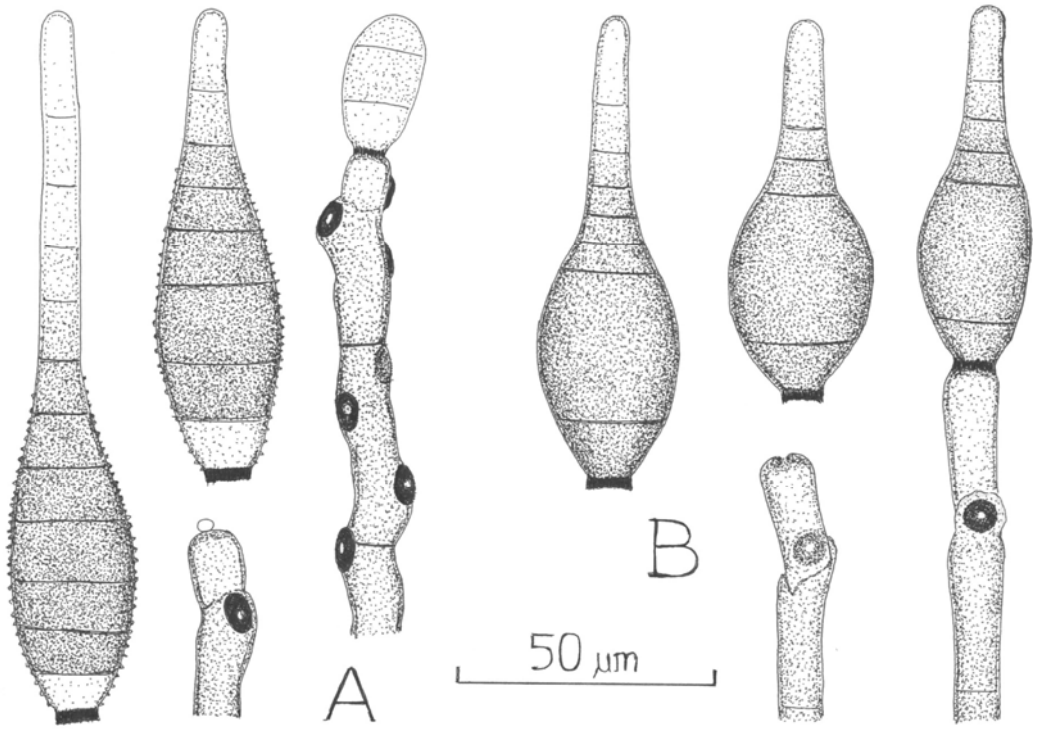

Fig. 1. A. Conidia and conidiogenous cells of *Neopodoconis ampullacea*. B. Conidia and conidiogenous cells of *Neopodoconis megasperma.*

ACKNOWLEDGEMENTS

I would like to thank Dr. Kartini Kramadibrata and Ms. Atik Retnowati (Bogor) for kindly reviewing the first draft of this paper.

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