

Perispore Ornamentations for the Indication of *Hypoxylon* Species

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The perispore ornamentation observed by using scanning electron microscope (SEM) has been recently used to indicate new or complex species in the fungal taxonomy. Some species of *Hypoxylon* have been reported concerning the significance of this characteristic in species indication but many of them have no record. In this study, three complex species of *Hypoxylon fendleri*, *H. retpela*, and *H. cf. lenormandii* collected in Thailand, have been investigated in their morphological characteristics both macroscopic and microscopic methods including perispore ornamentations by SEM. *Hypoxylon fendleri* and *H. retpela* are very closely related species. Their SEM micrographs of perispores resulted the same conspicuousness of the coil-like ornamentation which was different from Ju and Rogers (1996) who stated that *H. fendleri* and *H. retpela* differ mainly in the conspicuousness of the ornamentation on the perispore. However DNA sequencing results indicated 14 % divergence among both species. In case *H. cf. lenormandii* SUT065 occurring on bamboo has strange coil-like ornamentation which was different from *H. lenormandii* occurring on wood that have inconspicuous coil-like ornamentation. This result was supported by DNA sequencing data to separate *H. cf. lenormandii* to be a new variety.

References

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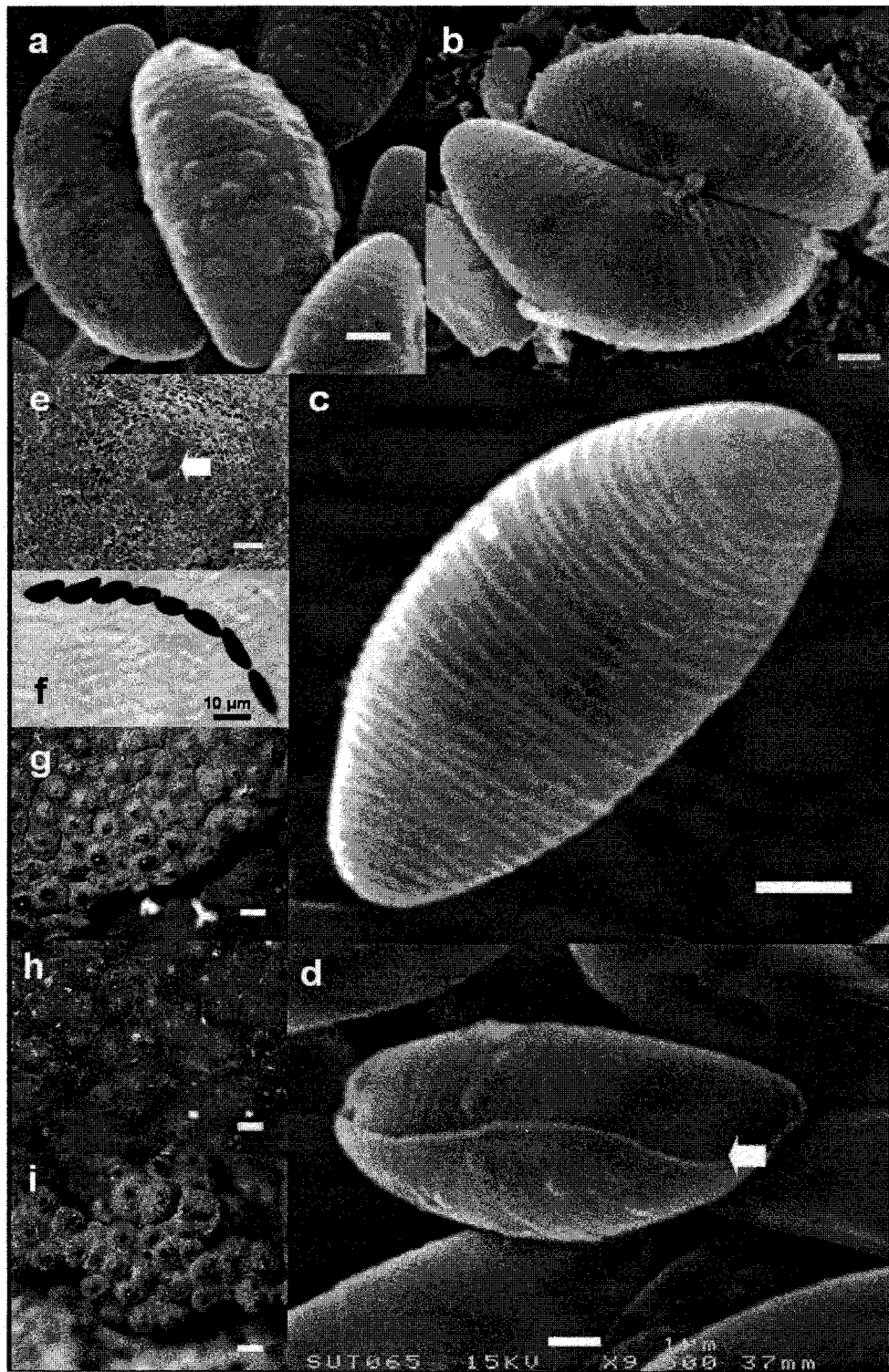


Figure 1. The fungus genus *Hypoxylon*. SEM micrographs of coil-like perispore ornamentation of *H. cf. lenormandii* (a), *H. retpela* (b), and *H. fendleri* (c), germ slit of *H. cf. lenormandii* (arrow) (d); and ostiole of *H. cf. lenormandii* (arrow) (e). Light microscope micrographs of *H. retpela* ascus containing eight ascospores (f), stromatal forms of *H. fendleri* (g), *H. retpela* (h), and *H. cf. lenormandii* (i). Bars equal 1 μm for a, b, c, d, e; and 1 mm for g, h, i.