Taxonomic position and world distribution of
*Pachykytospora nanospora* (Polyporaceae)

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*Pachykytospora nanospora* A. David & Rajchenb., originally described from Gabon (West Africa), is transferred to the genus *Haploporus* as *H. nanosporus* (A. David & Rajchenb.) M. Piątek, comb. nova. The species is for the first time recorded for Cameroon and Papua New Guinea, and its world distribution is reviewed and presented on a map. A sectional subdivision of the genus *Haploporus* is proposed, with two sections: sect. *Haploporus* and sect. *Pachykytospora* (Kotl. & Pouzar) M. Piątek, stat. & comb. nova.

Key words: *Haploporus*, nomenclature, *Pachykytospora*, polypores, taxonomy

The genus *Pachykytospora* was established by Kotlaba and Pouzar (1963) to accommodate *Polyporus tubercullosus* Fr. The most important characters of the genus were resupinate basidiomes with light brown tubes, trimitic hyphal system, absence of cystidia, and thick-walled, ornamented basidiospores. Further additions and descriptions increased the species number to eight in *Pachykytospora*.

Dai and Niemelä (in Dai et al. 2002) have recently shown that *Pachykytospora tubercullosa* (Fr.) Kotl. & Pouzar has all essential characters of the genus *Haploporus*, typified by *H. odorus* (Sommerf.) Bondartsev & Singer. The major differences were in macroscopic appearance of the species. *Haploporus odorus* is a pileate fungus with small pores, whereas *Pachykytospora tubercullosa* forms resupinate basidiomes with large pores. However, under the microscope the two are almost inseparable, with a similar shape, cyanophily and ornamentation of the basidiospores, but with differences in cyanophily of skeleto-binding hyphae, and dextrinoidy of spore walls. Taken together, the differences between *Haploporus* and *Pachykytospora* did not warrant generic segregation, and the latter was considered synonymous with the the former (Dai et al. 2002). Formal combinations have been made for five species: *Haploporus tubercullosus* (Fr.) Niemelä & Y.C. Dai, *H. alabamae* (Berk. & Cooke) Y.C. Dai & Niemelä, *H. papyraceus* (Schwein.) Y.C. Dai & Niemelä, *H. subtrameteus* (Pilát) Y.C. Dai & Niemelä (Dai et al. 2002), and *H. nepalensis* (T. Hattori) M. Piątek (Piątek 2003). The other species, *Pachykytospora major* G.Y. Zheng & Z.S. Bi, is considered to be a member of *Megasporoporia* (Dai & Li 2002). Despite this, there are two other species still residual in *Pachykytospora*, viz. *P. nanospora* A. David & Rajchenb. and *P. thindii* Natarajan & Kolanadavelu.
Pachykytospora nanospora was originally (David & Rajchenberg 1992) described from Gabon in West Africa. The holotype and some additional specimens should be housed in LY, but, although requested, are not available for loan (G. Guignard, pers. comm.). A probable isotype (not cited in the protologue, but matches perfectly with information given in it) is housed in O, and it was carefully studied by me, as well as three further collections from the herbarium. From the examination as well as from the description and illustration of P. nanospora given by David and Rajchenberg (1992) it became clear that this species should be transferred to Haploporus. It is noteworthy that in the original description the species was considered unique within Pachykytospora by having strongly dextrinoid skeletal hyphae, small pores and small basidiospores with rounded ridges. These features differ sharply from P. tuberculosa, which has weakly dextrinoid hyphae, rather large pores, and large basidiospores with longitudinally striate ridges (Esteve-Raventós et al. 1984). However, when the basidiospores of P. nanospora are compared with those of Haploporus odorus it becomes clear that the species have a similar spore size, and the spores are also covered by similar rounded ridges (Niemelä 1971, David & Rajchenberg 1992). The strong dextrinoid reaction of skeletal hyphae is unique within all species currently placed in Haploporus, but it is not an exceptional situation in polypores.

David and Rajchenberg (1992) pointed out a similarity of Pachykytospora nanospora with Murilloporus, described by Ryvarden (1985) for the Mexican polypore Trametes rutilanti-formis Murrill. Indeed this genus has strongly
dextrinoid skeletal hyphae and non-dextrinoid, ornamented basidiospores and it is undoubtedly closely related to Haploporus in the current sense, from which it differs only by the dimitic hyphal system. At this stage, it is not clear whether or not this character is sufficient to separate the two genera.

Haploporus nanosporus (A. David & Rajchenb.) M. Piątek, comb. nova


Haploporus nanosporus has been hitherto reported from Gabon in West Africa (David & Rajchenberg 1992) and Venezuela in South America (Ryvarden & Iturriaga 2004). Now it is reported for the first time from Cameroon in West Africa and from Papua New Guinea in Australasia. It must thus be understood as a widely distributed but scattered pantropical species (Fig. 1).

The genus Haploporus has now seven species, distributed in North America, Africa, Europe and Asia, with the main centre of occurrence in Asia. Due to differences in the macrostructure of basidiomes, cyanophilic of skeleto-binding hyphae, and dextrinoid of spore walls, the genus can be divided into two sections (see below), which correspond with the formerly recognized genera Haploporus and Pachykytospora.

Haploporus Singer sect. Haploporus

Type: Haploporus odorus (Sommerf.) Bondartsev & Singer (= Polyporus odorus Sommerf.).

Basidiomes pileatae, skeleto-binding hyphae strongly cyanophilous, spore walls strongly dextrinoid.
Haploporus sect. Pachykytospora (Kotl. & Pouzar) M. Piątek, stat. & comb. nova


Type: Haploporus tuberculosus (Fr.) Niemelä & Y.C. Dai (= Polyporus tuberculosus Fr.).

Basidiomes resupinate, skeleto-binding hyphae slightly cyanophilous, spore walls non-dextrinoid.

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References


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