A new polypore, *Wrightoporia rubella* Y.C. Dai, is described from Beijing, China. It is easily distinguished from the other species of the genus by its strongly developed, vinaceous rhizomorphs, pale brown context, generative hyphae without clamp connections and somewhat larger spores than in the other species. The differences between it and related species are discussed.

**Key words:** China, polypores, taxonomy, *Wrightoporia*

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**Introduction**

The genus *Wrightoporia* (Polyporaceae, Aphyllophorales) was described by Pouzar (1966) for *Poria lenta* Overh. & J.Lowe and *P. avellanea* Bres. because of a unique combination of characters: amyloid and ornamented spores, linked with dextrinoid and cyanophilous skeletal hyphae. Later, other species were transferred to the genus or described as new in it, particularly species from tropical areas (Ryvarden 1982, 1983, 1989; Ryvarden & Johansen 1980; Rajchenberg 1983, Rajchenberg & David 1990; David & Rajchenberg 1985, 1987; Zheng & Bi 1987). These additions gave the genus a wider concept than expressed in the original definition; it is now understood to include annual to perennial species, having resupinate to pileate basidiocarps, dimitic hyphal system, dextrinoid or non-dextrinoid and cyanophilous to acyanophilous skeletal hyphae, and smooth to asperulate spores having a weakly to strongly amyloid wall (Ryvarden 1982). Subsequently some species without clamps were included in the genus (David & Rajchenberg 1985; Ryvarden 1989, Zheng & Bi 1987). Finally, David and Rajchenberg (1987) reevaluated the genus and noted the similarities with *Amylonotus* Ryvarden, which was originally described by its dominating golden brown skeletal hyphae (Ryvarden 1975). They expanded the concept of *Wrightoporia* by including *Amylonotus* in it, and so the presence of gloeoplerous hyphae and gloeocystidia or pseudocystidia was added to the generic characters. Furthermore, Rajchenberg and David (1990) included one distinctly monomitic species in the genus, and Teixeira (1992) transferred *Amylosporus campbellii* (Berk.) Ryvarden to *Wrightoporia*, without, however, offering any explanation.

During a study of wood-rotting fungi in northern China (Dai & Niemelä 1994), two specimens of a resupinate polypore with strong rhizomorphs were collected from Beijing. Both evidently belonged to the genus *Wrightoporia*, since they possessed a dimitic hyphal system, dextrinoid skeletal hyphae, gloeoplerous hyphae and gloeocystidia, and finely echinulate, amyloid spores. They did not fit any known species in the genus, however, The two specimens are in very good condition, and I describe them here as a new species.
Methods

I used Cotton Blue (CB) when measuring and drawing the figure. Spores were measured from sections cut from the tubes. IKI stands for Melzer’s reagent and KOH for 5% potassium hydroxide; CB+ means cyanophilous and CB–acyanophilous. In determining the variation of the spore size, 5% of the measurements were excluded from each end of the range and are given in parentheses. The following abbreviations are used in the text: L = mean spore length (arithmetical mean of all spores), W = mean spore width (arithmetical mean of all spores), Q = quotient of the mean spore length and the mean spore width (L/W ratio), (n = x/y) = xmeasurements of spores (basidia, hyphae, gloeocystidia) from y specimens. The width of a basidium was measured at the thickest part and the length was measured from the apex (sterigmata excluded) to the subbasidial septum. Sections were studied at magnification up to x1250 by using a Leitz Diaplan microscope and phase contrast illumination. Drawings were made with the aid of a drawing tube. For a more detailed description of the methods, see Niemelä (1985). Colour terms are according to Rayner (1970).

Wrightoporia rubella Y.C.Dai, sp. nova — Fig. 1.

Fructificatio annua, resupinata vel effusoreflexa, pori pallide infuscata vel erubescentes, 3-4 per mm; systema hypharum dimiticum; hyphae generatoriae afibulatae, hyphae skeletales crassitunicatae, dextrinoidae; sporae copiosae, late ellipsoideae vel subglobosae, amyloideae, 4-6 x 3-4.2 µm.


Additional specimen examined

Beijing. Yiheyuan, on rotten wood of angiosperm, 29.IX.1993 Dai 1407b (HMAS).

Basidiocarps annual, resupinate to effused-reflexed, pori pallide infuscata vel erubescentes, 3-4 per mm; systema hypharum dimiticum; hyphae generatoriae afibulatae, hyphae skeletales crassitunicatae, dextrinoidae; sporae copiosae, late ellipsoideae vel subglobosae, amyloideae, 4-6 x 3-4.2 µm.

Spores. Basidiospores broadly ellipsoid to subglobose, with finely echinulate ornamentation (very easily seen in Melzer’s reagent, but appearing almost smooth in CB), thin-walled to fairly thick-walled, distinctly amyloid, CB–, 4.6(-8) x (2.3-)3-4.2(-4.8) µm, L = 5.13, W = 3.39, Q = 1.17-1.44 (n = 71/2).

Etymology: rubellus (Lat., adj.), red, referring to the colour of the rhizomorphs.

Ecology and type of rot. Very little can be said about the ecology of the new species. The two specimens were found in parks strongly influenced by man. One specimen was growing on a
decorticated fallen trunk which was mostly decayed by a species of the Corticiaceae. The type of rot could not be determined.

**Discussion**

The thick-walled hyphae are mostly unbranched and can be described as typical skeletal hyphae. However, some of them bear a few branches, agreeing with Corner’s definition of skeleto-binding hyphae (1981).

The strongly rhizomorphic fruit body, pale brown context, dimitic hyphal system, dextrinoid skeletal hyphae, and fairly large, ornamented amyloid spores are the main characters of *Wrightoporia rubella*. The new taxon lacks clamp connections and has acyanophilous skeletal to skeleto-binding hyphae, but otherwise shares all the basic characters with the type...
species. Several other species in the genus likewise exhibit agreement with the essential characters of the genus while deviating in one character or another. For example, W. cylindrospora Ryvarden has smooth spores and non-dextrinoid skeletal hyphae, W. cinnamomea Ryvarden has non-dextrinoid skeletal hyphae, and W. perplexa Ryvarden has simple septa and non-dextrinoid skeletal hyphae in the subiculum. The new species agrees well with the concept of Wrightoporia.

Among the species of Wrightoporia, only three, besides W. rubella, lack clamp connections in generative hyphae: W. perplexa, W. subadusta (Bres.) Pouz. are the other resupinate, rhizomorphic species of the genus, but differ from W. rubella in having clamp connections in the generative hyphae, unbranched and narrow skeletal hyphae (less than 2.5 μm in diam vs. 3–6 μm in W. rubella), and smaller spores (3–3.5 × 2.5–3 μm and 3.5–4.5 × 2.5–3.5 μm, respectively). Both species have a cream-coloured pore surface, and rhizomorphs and context that are different from W. rubella.

The gloeoplerous hyphae and gloeocystidia of the new taxon are supporting a prediction by David and Rajchenberg (1987) that these two characters would turn out to be important features in the genus. The species keys out under point 2 in the key of David and Rajchenberg (1987:203).

Comparison material examined

Wrightoporia africana

Wrightoporia avellanea

Wrightoporia lentia
U.S.A. North Carolina: Highland, on pine stump, 3.IX.1950 Lowe 3859 (O).

Acknowledgements. Financial support from the Academy of Finland (Project No. 1012426, 1993–1994) is gratefully acknowledged. I would like to express my gratitude to Prof. Tuomo Niemelä (Helsinki) for his guidance, generous help in solving problems, and for the revision of the manuscript. Pertti Renvall (Helsinki) allowed me to study some specimens on loan from Prof. Leif Ryvarden (Oslo), and Prof. Leif Ryvarden (Oslo) and Prof. Teuvo Ahl (Helsinki) prepared the Latin description; warm thanks are due both.

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Received on 15 January 1995