

## ‘*Pachnocybe*’ *albida* - unfairly neglected

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This note is about a beautiful little fungus, at least I considered it so when I found it. I was delighted to discover later that Berkeley (1836), when moving it into his newly erected genus *Pachnocybe*, had called it ‘this beautiful plant’. The generic name is placed in inverted commas in my title as it became clear in 1982 that it does not belong in *Pachnocybe*. I can find no evidence that anyone since that time has moved it to anywhere more appropriate - and this to my mind constitutes unfair neglect. It probably deserves a genus of its own.

I found the collection illustrated here on 22 Oct. 2019 during the BMS Autumn Foray in Glamorgan, growing on a fairly rotten hardwood stump on the path below Melincourt Falls near Swansea. I had no idea what it was, but it excited me as interesting and unusual. I am most grateful to three other participants on the foray who I persuaded to drop what they were doing and take the photos here credited to them (Figs 1–3). At this point I should confess that it is ‘merely’ a tiny hyaline hyphomycete and thus off the radar for most forayers. It is also very distinctive both macro- and microscopically. I feel it could do with some publicity.

I might have identified it myself from its picture at Fig. 231 in Ellis & Ellis (1985 + reprint 1997) which agrees nicely with Fig. 3 here, but I missed this. Luckily Brian Spooner was able to put me right. On consulting the fungarium collections in Kew I was embarrassed to find I had already found it three times between 1997 and 1999, the first of these again determined by Brian. All had vanished from my mind in the intervening twenty years. I was surprised to discover that the only other British collections in Kew were ones made separately by Berkeley and by Broome and three in the years 1956–62 determined by Derek Reid. This might suggest it is rare but I suspect not. I probably look at a lot more rotten wood (chiefly for corticioids) than the few professionals who are prepared to name hyaline hyphomycetes. They mainly have their

hands full with species that grow on economically important hosts. My theory is that those who come across this species rarely have the urge to investigate it further.

### A brief history of *Pachnocybe albida*

- \* Described by Fries (1829) as one of seven species in his genus *Sporocybe* defined for species with thick stipes surmounted by swollen heads full of spores (often described as ‘stilboid’ though the genus *Stilbum* is now ± entirely dispersed). Fries described it as “Haec maxime insignis plantula novum” (this very distinctive new plantlet) and speculated that it might need its own genus except that he was loth to define any more genera in this area.
- \* Moved by Berkeley (1836) to be one of five species in his new genus *Pachnocybe* (Greek: Pachne = hoar-frost, cybe = head).
- \* Combined by Saccardo (1886) in *Isaria*, a genus now confined to species on insect hosts.
- \* Listed by Masee (1893) as *Isaria albida*, but his concept had spores only 6 x 4 µm despite Fries having specified ‘sporidiis magnis’, so he evidently misapplied the name. His record from Scarborough in 1880 can thus be ignored, though it has reappeared on FRDBI as *Pachnocybe albida*.
- \* Hughes (1958) in his invaluable review of classical hyphomycete genera selected *Pachnocybe ferruginea* as type species of the genus. As the first person to nominate a type species this selection stands. He excluded *P. grisea* as a synonym of *Cephalotrichum purpureofusum* but suggested no alternative placement for Berkeley’s remaining three species: *P. albida*, *P. acicula* and *P. subulata*.
- \* Oberwinkler & Bandoni (1982) showed that the supposed conidia of *P. ferruginea* were in fact basidiospores and that this species belonged in the *Atractiellales* (now in subphylum *Pucciniomycotina*). *P. albida* and the remaining two *Pachnocybe* species were

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clearly unrelated and thus needed placement in other genera which, as far as I am aware, they have yet to receive, even though *Pachnocybe* was promptly reduced to a monotypic genus in the next edition of the Dictionary of the Fungi.

**British distribution and hosts**

Fries described *Sporocybe albida* as a species he had found several times on rotting herbaceous stems in association with *Stachylidium bicolor* (described in Ellis & Ellis as common on dead

herbaceous stems but also on wood). By contrast all the British records have been on wood, with Berkeley's collection bridging the gap by being "on rotten wood in company with *Stachylidium bicolor*". He found it in his parish of King's Cliffe, Northants, evidently in some quantity as he was able to include it (as No.52) in the first tranche of 60 species of his set of Exsiccati (British Fungi Fasc.1, 1836) issued to accompany his 1836 account of the British fungi.

Ellis & Ellis (1985) list *P. albida* under 'Plurivorous Wood and Bark Fungi', citing rotten



Fig. 1. General view. Fruitbodies around .1 mm high. Photo © G.Kibby.

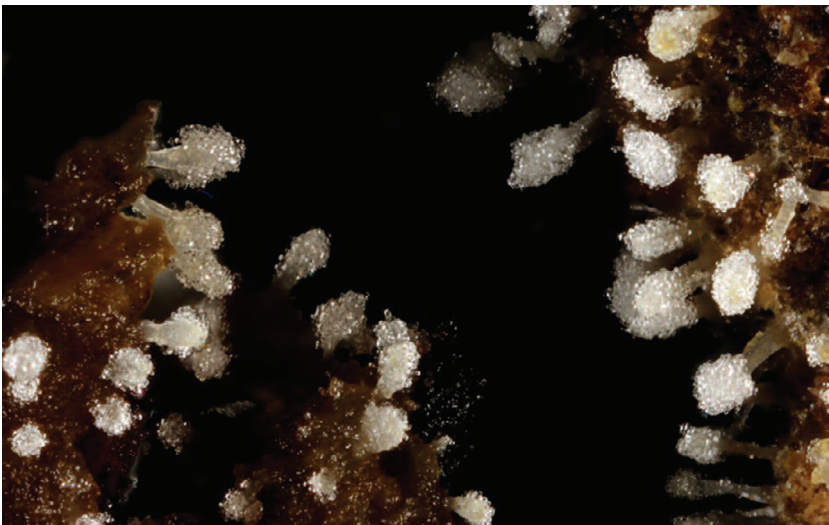


Fig. 2. Close up view. Photo © Peter Smith.

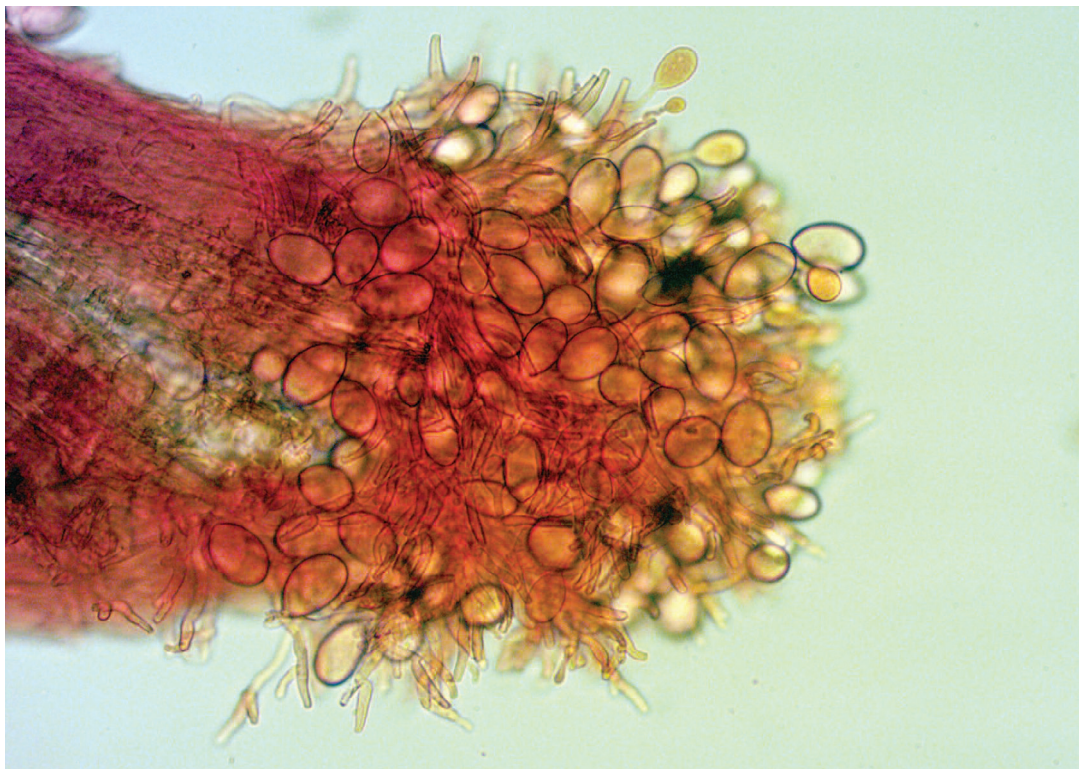


Fig. 3. Fruitbody apex stained in Congo Red showing large ovoid conidia 16–20(–25) x 13–15  $\mu$ m. Photo © Richard Wright.

logs of *Buxus*, *Fraxinus* and *Quercus* as hosts. Judging by the material in Kew and the records on FRDBI this appears to reflect the only British collections known at the time on any named host (one on each host). They note that it ‘needs taxonomic revision’. Nothing changed in their second edition (1997). There have since been two records on bark kept damp (presumably while culturing myxomycetes): by Malcolm Clark in 1975 in Warwickshire on elm and by J. Rickets in 2007 in Worcestershire on sycamore. My previous finds were on indet. wood in Surrey and Middlesex.

The one true *Pachnocybe*, *P. ferruginea*, probably has a better claim to rarity in Britain. It was described by Sowerby as *Mucor ferrugineus* from some pieces of deal he had bought for firewood in 1805. The only other British material in K is also from worked wood found by Broome in 1878 at a school in Somerset. It too is illustrated by Ellis & Ellis (Fig. 232), described as ‘mostly on sawn timber’. There are also two claims of this species from the wild listed on FRDBI but both apparently unsupported by any preserved material.

## References

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