

Fungal Portrait: 101

Chromocyphella muscicola (Fr.) Donk

Peter R. Smith¹



Fig. 1. *Chromocyphella muscicola* on moss. Photograph © Peter R. Smith.

Description

Etymology: Latin *musci* = with moss + *cola* = dwelling.

Basidiocarps: cup- to disc-shaped, 1–5 mm in diameter and in length, often dorsally attached. **Stipe:** reduced to absent. **Cap surface:** silky to pruinose, finely hairy at the margin, white to cream. **Hairs:** at the cap margin about 25–44 x 4.5–6 µm, cylindrical, flexuose, angled and branched, somewhat cystidia-like. **Cap cuticle:** a trichodermal cutis, with golden-brown encrusting loosely attached granular pigments but these are sometimes absent. **Clamps:** present. **Tramal hyphae:** regular. **Hymenium:** smooth, wrinkled or with much reduced gills, first cream but soon cinnamon to rust brown. **Basidia:** 4-spored. **Cystidia:** absent. **Spores:** rust-brown. 8–10 x 6.5–8.5 µm, Q = 1.1–1.4, subglobose to broadly ellipsoid, sometimes slightly angular, verrucose, moderately thick-walled, some with a brown, slightly dextrinoid plage. **Substrate:** on epiphytic mosses on the bark of trees, or on liverworts, especially near

water where there is a constant high humidity. It sometimes spreads onto apparently bryophyte-free substrate but bryophytes are always nearby.

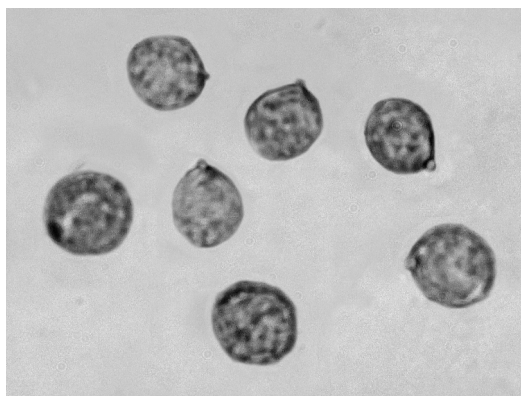


Fig. 2. A black and white image of *Chromocyphella muscicola* spores. Photograph © Peter R. Smith.

Chromocyphella muscicola (Fr.) Donk (Fig. 1) is one of the easiest cyphelloid fungi to identify. It is the only cyphelloid species of *Chromocyphella* so far recorded in Britain and is the only British brown-spored cyphelloid species that is parasitic on bryophytes. It also has some other distinctive features, especially the subglobose to broadly ellipsoid sometimes slightly angular, verrucose, moderately thick-walled spores (Fig. 2). The basidiocarps usually remain more or less bell shaped and they nearly always hang downward to allow the spores to fall out of the cups. The pale hymenium gets distinctively speckled brown as the spores ripen. Like all other bryophytic cyphelloids it should be searched for in December, or January if not too cold. It is often associated just with mosses; however, it is a species that is equally at home on liverworts (front cover). Sometimes it can spread onto woody substrates that are supporting mosses or liverworts but is never far away from them, and in such cases a possible connection to the bryophytes cannot be dismissed. It appears to be relatively widespread and common in Britain and seems to have particularly good years. In one such year I decided to purposefully search five sites across Derbyshire, which I thought would have the right habitat of moss-covered branches in humid environments such as over streams and near waterfalls etc. (Fig. 3). I looked at a different site each day for five days, in the middle of December, limiting each search to about one hour and I found it at all five sites.

Moreno *et al.* (2017), in a multigene study, have shown that this genus properly belongs in Hymenogastraceae close to *Flammula*. There they also described a new agaricoid species *C. lamellata* with fully formed gills found in Tenerife. In 2018 this species was also found in

Scotland, on moss on *Picea sitchensis*, this was noted in Update 8 of CBIB, but currently lacks a published account. It is also known from Germany and the Netherlands, and two years ago also from France, reported in Lagrandie & Cochard (2024). At least two other European *Chromocyphella* species are known, *C. meloana* Gruhn *et al.* (2023), and *C. pinsapinea* Moreno *et al.* (1985), they are both easily distinguished from *C. muscicola* by smaller less globose spores and *C. meloana* also by its initial corticioid habit.

References

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- Moreno, G., Prieto, M., Esteve-Raventos, F. & Olariaga, I. (2017). Phylogenetic assessment of Chromocyphellaceae (Agaricineae, Basidiomycota) and a new lamellate species of *Chromocyphella*. *Mycologia* 109 (4): 578–587. <https://doi.org/10.1080/00275514.2017.1377586>.

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Fig. 3. A typical habitat for *Chromocyphella muscicola* on a moss-covered *Salix* branch over water. Arrows point to the basidiocarps but they cannot be seen at this distance. Photograph © Peter R. Smith.