Large, gelatinous inoperculate cup fungi

A form group with often quite large, discoid, turbinate or brain-like, highly gelatinous apothecia. The spore release is controlled by an internal, cork-like structure in the ascus top. The species in this group are predominantly wood-decayers.

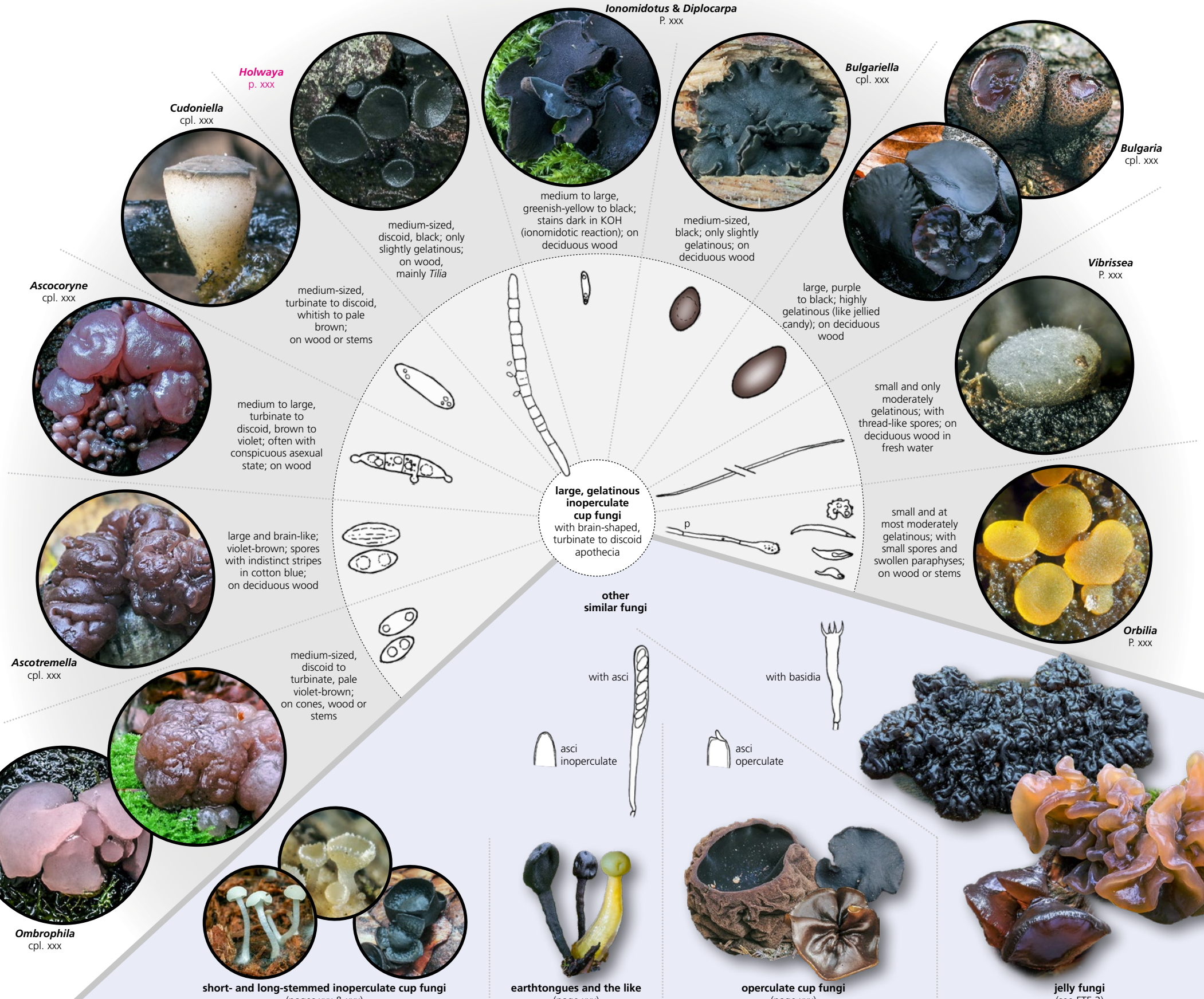
OTHER SIMILAR FUNGI:
– grades into the group of small, gelatinous, inoperculate cup fungi. It can be difficult to determine whether or not a tiny cup fungus has gelatinous matter in the tissues, and it is important to check the wheels for both the short- and long-stemmed inoperculate cup fungi (pages 1404 & 1426).
– gelatinous, tongue-shaped species are included on page 1350.
– gelatinous, operculate cup fungi are included on page 1290.
– jelly fungi have basidia, see page 1162. However, they can superficially resemble species of *Ascotremella* and *Ombrophila* and microscopy may be required.

See also the general wheel, page 1348.

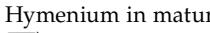
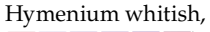
FURTHER READING: 21, 49.

Micro-drawings: spores outermost, followed by paraphyses (p).

Approximate species count applies to temperate Europe.

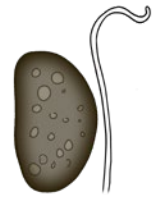


Key to large, gelatinous inoperculate cup-fungi

1. Hymenium in mature specimens greenish black to blackish () 2
Hymenium whitish, buff, yellowish, vinaceous to ± violet () 4

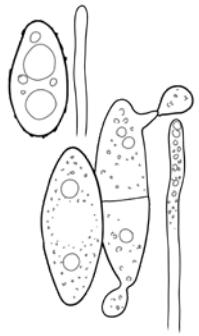
2. Spores hyaline ..... see *Ionomidotus* and *Diplocarpa*, p xxx
Most spores blackish (will often colour the fingers after touching the hymenium) 3

3. Fruitbodies 1-5 mm wide; asci with 8 dark spores; spores 7.5-9 µm wide ..... see *Bulgariella pulla*, page xxx
Fruitbodies strongly gelatinous, 10-40 mm wide; asci with 4 dark spores and 4 pale abortive; spores 6-7 µm wide. Fruitbody 8-50 x 5-20 mm; hymenium flat, blackish; asci I+, 95-125 x 8-9 µm, 8-spored, with croziers; spores spindle-shaped to loaf-shaped, 11-14.5 x 6-7 µm, Qav. ≈ 2, smooth, 1-celled; paraphysis tips cylindrical, coiled; on deciduous wood; common ..... ***Bulgaria inquinans***

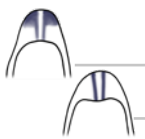


4. Fruitbodies brain-like folded, more than 10 mm wide; with or without croziers 5
Fruitbodies disc-, cushion- to cone-shaped *and/or* smaller; always with croziers 6

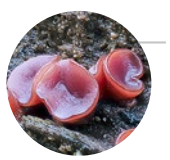
5. Spores smooth or finely warty; asci shorter than 100 µm, with croziers ..... see *Ombrophila pura*, cpl. 11
Spores with stribes of tiny warts; asci longer than 100 µm, without croziers. Fruitbody 10-40 x 10-30 mm, greyish violet; asci I+, 108-140 x 8-9.5 µm, 8-spored; spores spindle-shaped to ellipsoid, 6.5-11.5 x 3.5-4.5 µm, Qav. ≈ 2.3, 1-celled; paraphysis tips cylindrical, straight; on deciduous wood; rather rare ..... ***Ascotremella faginea***



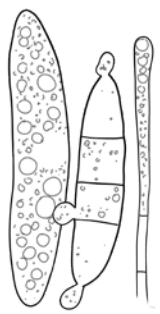
6. Deep in *Sphagnum*; hymenium greenish. Fruitbody 5-35 x 5-30 mm; with a pronounced stem; asci I+ in a broad area, 130-220 x 9-12 µm, 8-spored; spores spindle-shaped, 12-18.5 x 4.5-5 µm, Qav. ≈ 3.2, smooth, 1-2-celled; paraphysis tips cylindrical, straight, with guttules; rare or overlooked ..... ***Ascocoryne turficola***
Habitat different; hymenium mostly ± lilac to violet, rarely whitish to greenish 7



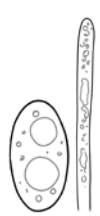
7. Fruitbodies violet to brownish violet (); ascus top often amyloid in a broad area 8
Fruitbodies whitish, pale buff, yellowish, vinaceous to greyish violet (); ascus top only with two narrow amyloid or hemiamyloid lines when seen from the side, rarely I- 12



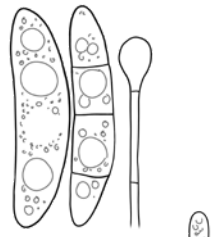
8. Sporer 20-35 µm long, when alive with many small guttules; without seperate asexual structures, but forming miceoconidia from the spores. Fruitbody 5-30 x 2-5 mm; hymenium flat, violet; asci I+, 160-250 x 12-14 µm, 8-spored; spores loaf- to spindle-shaped, 20-35 x 4.5-6.5 µm, Qav. ≈ 5, smooth, 1-8-celled; paraphysis tips club-shaped, straight, with guttules; on deciduous wood; common ..... ***Ascocoryne cylichnium***
Spores on average shorter than 20 µm, with many small and several large guttules; with separate asexual structures (a *Coryne* anamorph) 9



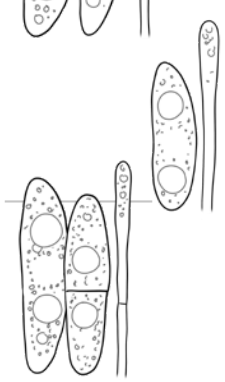
9. Spores 6.5-12 µm long. Fruitbody 0.5-2 x 0.5-1 mm; hymenium arched, vinaceous, as young possibly also greenish; asci I+, 90-105 x 7.5-8.5 µm, 8-spored; spores spindle-shaped to loaf-shaped, 6.5-12 x 4-5.5 µm, Qav. ≈ 1.9, smooth, 1-celled; paraphysis tips cylindrical to club-shaped, straight, with guttules; on coniferous and deciduous wood; rare or overlooked ..... ***Ascocoryne lilacina***
Spores longer 10

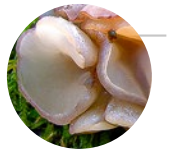


10. Paraphyses capitate. Fruitbody 2-10 x 2-5 mm; hymenium flat, dark brownish violet; asci I+, 160-185 x 11-13 µm, 8-spored; spores bend-spindle-shaped to spindle-shaped, 17-25 x 4.5-5.5 µm, Qav. ≈ 4.2, smooth, mostly 1-4-celled; asexual state as short, pale violet pins producing 4-4.5 x 1 µm large, bend conidia; on deciduous wood; rather common ..... ***Ascocoryne inflata* nom. prov.**
Paraphyses tips clavate 11

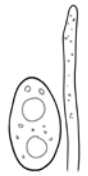


11. Heads of the asexual state greyish cream, much paler than the hymenium. Fruitbody 2-10 x 1-3 mm; hymenium flat, brownish violet; asci I+, µm, 8-sporeds; spores loaf-shaped, 12-18 x 3.5-4.5 µm, Qav. ≈ 3.8, smooth, 1-celled; paraphysis straight, with guttules; conidia 4-4.5 x 1 µm, bend; on deciduous wood, e.g. *Fagus*, *Quercus*, *Betula*, *Salix* and *Fraxinus*; rather common ..... ***Ascocoryne albida***
Heads of the asexual state lilac to violet, ± coloured like the hymenium. Fruitbody 4-10 x 2-5 mm; hymenium flat, violet; asci I+, 130-190 x 9.5-1 µm, 8-spored; spores spindle- to loaf-shaped, 14-21 x 4-5.5 µm, Qav. ≈ 3.7, smooth, 1-2-celled; paraphysis straight, with guttules; conidia 3.3-5.5 x 1-1.4 µm, bend; on deciduous wood; common ..... ***Ascocoryne sarcoides***



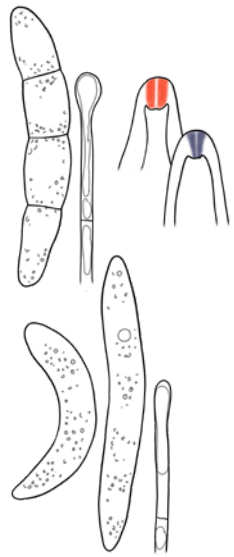


12. Fruitbodies 5-30 mm wide, with a well defined margin and a warty outer side and long with a depressed hymenium; spore Qav ≈ 1.8. Fruitbody 5-30 x 5-10 mm; hymenium first depressed , with age sometimes arched, pale vinaceous; asci I+, 80-90 x 8-10 µm, 8-spored, smooth to finely warty, with croziers; spores ellipsoid to spindle-shaped, 7-9.5 x 4-5 µm, 1-celled; paraphysis tips cylindrical to club-shaped, straight, with VBs; on deciduous wood, especially *Fagus*; rather common ..... ***Ombrophila pura***
Fruitbodies 1-8 mm wide, different; spore Qav. higher 13



13. Spore Q above 4 15
Spore Q below 4 18

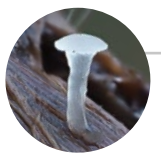
14. Spores thread-like ..... see *Vibrissea*, p. xxx
Spores spindle-shaped, bend-spindle-shaped to cucumber-shaped 15



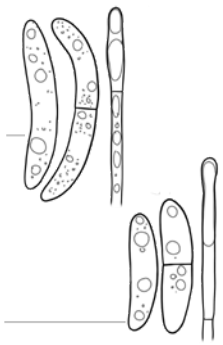
15. On wood; spores 4-5-celled; ascus top hemiamyloid (red in Lugol, blue when pretreated with KOH). Fruitbody 1.5-8 x 1-2 mm; hymenium arched, buffish, asci, 140-208 x 11-14 µm, 8-spored; spores spindle-shaped to bend-spindle-shaped, 22.5-33 x 4.8-5.5 µm, Qav. ≈ 5.4, smooth, mostly 4-celled; paraphysis tips lance- to head-shaped, straight, with VBs; rare or overlooked ..... ***Ombrophila hemiamyloidea***
On herbs; spores 1-2-celled; ascus top amyloid (directly blue in Melzer and Lugol) 16

16. Spores on average longer than 20 µm; asci longer than 90 µm. Fruitbody 2-4 x 2-6 mm; hymenium flat, hyaline to pinkish to buffish; with a stem; asci I+, 94-110 x 8.5-10.5 µm, 8-spored; spores spindle-shaped, bend-spindle-shaped to cucumber-shaped, 19-28 x 3.3-4 µm, Qav. ≈ 6.4, smooth, 1-celled; paraphysis tips cylindrical, straight, with VBs; on dead stems of *Carex*; rare or overlooked ..... ***Ombrophila pileata***
Spores on average shorter than 20 µm; asci shorter than 90 µm 17

17. Some spores strongly curved, 14-21 µm long. Fruitbody 1.5-3 x 1-8 mm; hymenium arched, buffish; with a stem; asci I+, 75-90 x 7.5-8.5 µm, 8-spored; spores spores bend-spindle-shaped to sausage-shaped to cucumber-shaped, 14-21 x 2.5-3 µm, Qav. ≈ 6.4, smooth, 1-celled, as overmature 2-celled; paraphysis tips cylindrical, straight, with VBs; on dead stems of *Carex*, *Glyceria* and *Typha*; rare or overlooked ..... ***Ombrophila costantinii***

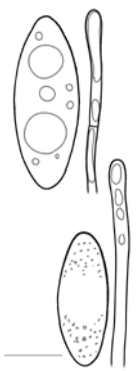


Spores only slightly curved, 10.5-15.5 µm long. Fruitbody 1-3 x 1-3 mm; hymenium arched, hyaline, greyish to vinaceous; with a stem; asci I+, 60-70 x 6-7 µm, 8-spored; spores spindle-shaped to bend-spindle-shaped, 10.5-15.5 x 2.5-3 µm, Qav. ≈ 4.7, smooth, 1-celled, as overmature 2-celled; paraphysis tips cylindrical, straight, with VBs; on dead stems of *Glyceria* or other grasses; rare or overlooked ..... ***Ombrophila ambigua***



18. Spores on average longer than 9.5 µm 19
Spores on average shorter than 9.5 µm 22

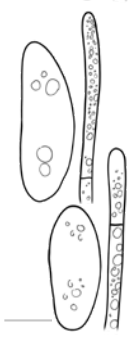
19. Asci with spores of two sizes; spores mostly with some large guttules. Fruitbody 2-5 x 2-3 mm; hymenium arched to flat, pale vinaceous to greyish; asci I+, 80-90 x 10-11 µm, 8-spored; spores spindle-shaped to bend-spindle-shaped, 12-18 x 3.5-4.5 µm, Qav. ≈ 3.8, smooth, 1-2-celled; paraphysis tips club-shaped to lance-shaped, straight, with VBs; on wet wood or dead leaves of deciduous trees or on soil; rare or overlooked ..... ***Ombrophila rivulorum***
Asci with spores of ± equal size; spores with many small guttules .. 20



20. On soil; hymenium greyish violet. Fruitbody 1-4 x 1-2 mm; hymenium flat to arched; asci I+, 80-100 x 7-12 µm, 8-spored; spores spindle-shaped, 9-16 x 4-6 µm, Qav. ≈ 2.5, smooth, 1-celled; paraphysis tips cylindrical to club-shaped, straight, with VBs; rare or overlooked ..... ***Ombrophila limosella***
On herbs or wood 21

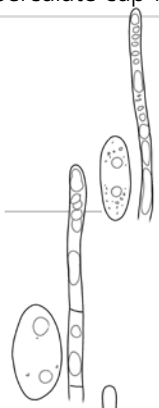
21. Fruitbody top-shaped, 8-20 mm wide. Fruitbody 8-20 x 4-7 mm; hymenium whitish to yellowish to greyish; asci I- or I+, 80-125 x 10-12 µm, 8-spored, with croziers; spores 14-16 x 4-5.5 µm, Qav. ≈ 3.2, 1-celled; paraphysis tips cylindrical, straight, with VBs; on wood, dead stems or cones of deciduous and coniferous wood; rare or overlooked ..... ***Cudoniella tenuispora***

Fruitbody nail-shaped, 3-12 mm wide. Fruitbody 3-12 x 4-25 mm; hymenium whitish to greyish to buffish; asci I+bb, 75-105 x 7-12 µm, 8-spored, with croziers; spores 9.5-15 x 3.5-5.5 µm, Qav. ≈ 2.7, smooth, 1-celled; paraphysis tips cylindrical, straight, with VBs; on wood of *Salix* or stems of *Phragmites*; common ..... ***Cudoniella clavus***



22. Hymenium yellowish (); on wood of Picea. Fruitbody 1.5-4 x 2-3 mm; hymenium arched; asci I+, 55-65 x 5.5-7 µm, 8-spored; spores spindle-shaped, 5.5-8.5 x 3-4 µm, Qav. ≈ 2, smooth, 1-celled; paraphysis tips cylindrical, straight, with VBs; very rare ..... ***Neobulgaria premnophila*** [→ *Ombrophila*]
Hymenium whitish, greyish violet, greyish cream (); on cones of *Pinus*, *Picea* and rarely *Alnus* 22

23. Spores Qav. higher than 2.4; ascus top I- or weakly I+. Fruitbody 1-3.5 x 1-2 mm; hymenium arched to flat, ± vinaceous, 60-100 x 7-8 µm, 8-spored; spores spindle-shaped to irregularly ellipsoid, 5-8 x 2-3 µm, Qav. ≈ 2.6, smooth, 1-celled; paraphysis tips cylindrical, straight, with VBs; on cones of *Pinus*; rare or overlooked ..... ***Ombrophila rubicunda***
Spores Qav. lower than 2.4; ascus top I+ 24



24. Fruitbodies ± white (). Fruitbody 1-2 x 1-2 mm; hymenium arched to flat; asci I+, 55-75 x 9-10 µm, 8-spored; spores spindle-shaped, 7-10 x 3.5-4.5 µm, Qav. ≈ 2.1, smooth, 1-celled; paraphysis tips cylindrical, straight, with VBs; on cones of *Picea*; rare or overlooked ..... ***Ombrophila tetracladia***
Fruitbodies pale vinaceous to greyish violet () 25

25. Spores 5-7 x 2.5-3.5 µm, with only a few small drops. Fruitbody 1-4 x 2-10 mm; hymenium arched to flat, ± vinaceous; asci I+, 45-55 x 6-8 µm, 8-spored; spores spindle-shaped, Qav. ≈ 2, smooth, 1-celled; paraphysis tips cylindrical, straight; on cones of *Picea* or rarely *Pinus*; rare or overlooked ..... ***Ombrophila janthina***

Spores 6.5-10 x 3-4.5 µm, usually with a least two larger drops. Fruitbody 1-8 x 2-4 mm; hymenium arched, ± vinaceous to greyish violet; asci I+, 70-95 x 6-10 µm, 8-spored; spores spindle-shaped, Qav. ≈ 2.2, 1-celled; paraphysis tips cylindrical, straight, with VBs; on cones of *Picea*, *Pinus* and possibly *Alnus*; rare or overlooked ..... ***Ombrophila violacea***