

Pholiota P. Kumm.

STIG JACOBSSON

Frb collybioid to tricholomatoid, often ± yellow and fasciculate. Cap 5-200 mm, exceptionally larger, often scaly, often slimy or viscid, not hygrophanous, yellow to brown, rarely whitish or ± red. Gills adnate or slightly emarginate with a small decurrent tooth, ± crowded. Stem with ± disrupted ring or evanescent ring zone. Smell generally weak. Taste mild or ± bitter. Sp deposit rusty brown.

Sp ellipsoid to ovoid, often phaseoliform in side view, smooth in a light microscope, generally with a germ pore. Cheilocystidia present. Pleurocystidia present except in subgen. *Flavidula*, often as chrysocystidia. Pileipellis an ixocutis, less often a cutis. Clamps present.

Saprotrophic, or sometimes parasitic, on wood, sometimes on soil among litter or on fireplaces.

24 species in the Nordic countries.

Lit.: Holec 2001, Jacobsson 1990, Noordeloos in Bas et al. 1999.

Main key

1. Pleurocystidia absent Key A, subgen. *Flavidula* p. 838
 - Pleurocystidia present 2
2. Cap ± recurved or appressed scaly or scaly; chrysocystidia present Key B, subgen. *Pholiota* p. 838
 - Cap not scaly; chrysocystidia absent Key C, subgen. *Flammuloides* p. 842

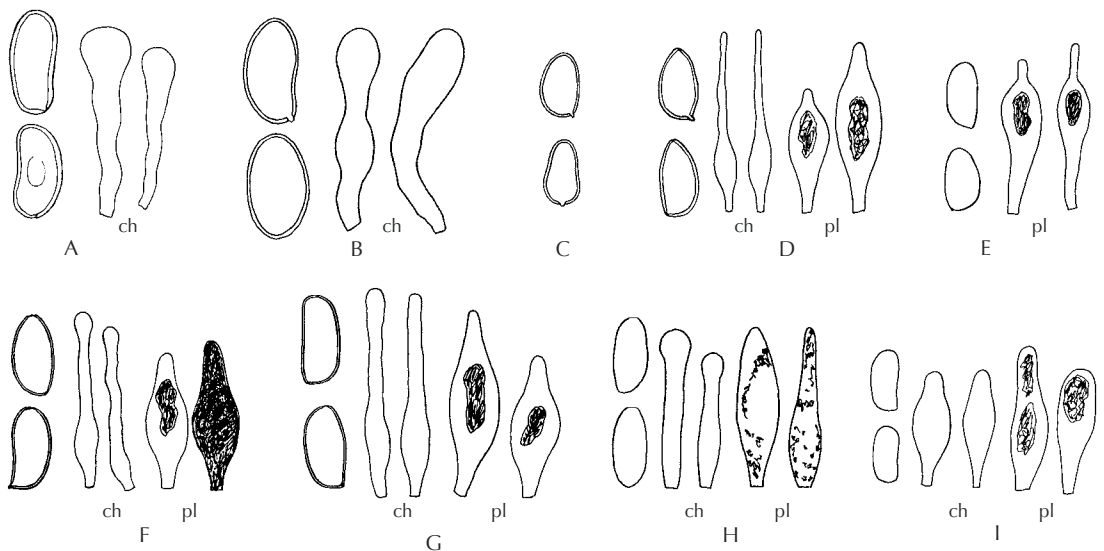


Fig. 839. Spores, cheilocystidia and pleurocystidia: A: *Pholiota tuberculosa*; B: *P. lucifera*; C: *P. mucigera*; D: *P. astragalina*; E: *P. subochracea*; F: *P. gummosa*; G: *P. conissans*; H: *P. pityrodes*; I: *P. flammans*.

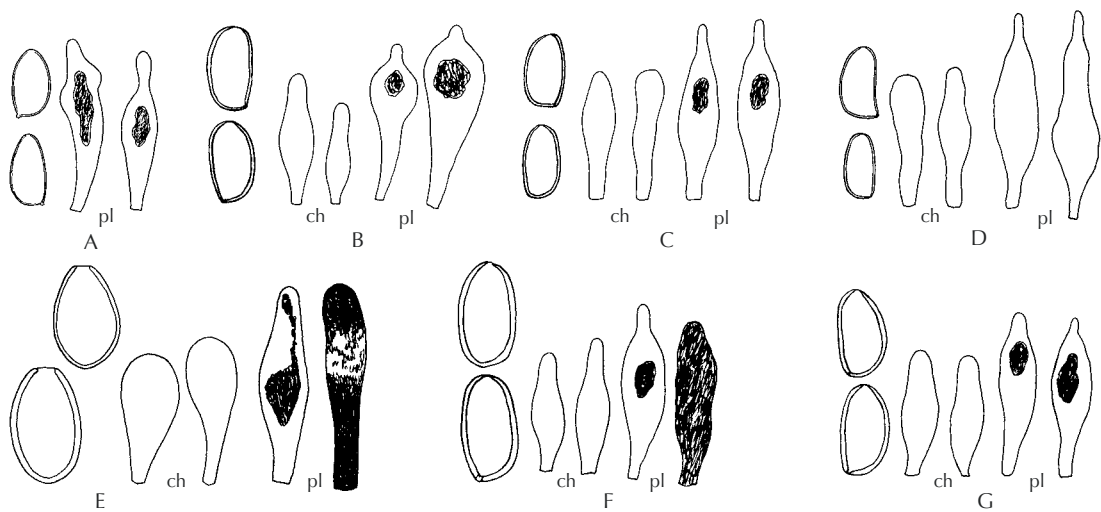


Fig. 841. Spores, pleurocystidia and cheilocystidia: A: *P. lundbergii*, B: *P. squarrosa*, C: *P. jahnii*, D: *P. squarrosoides*, E: *P. cerifera*, F: *P. adiposa*, G: *P. limonella*.

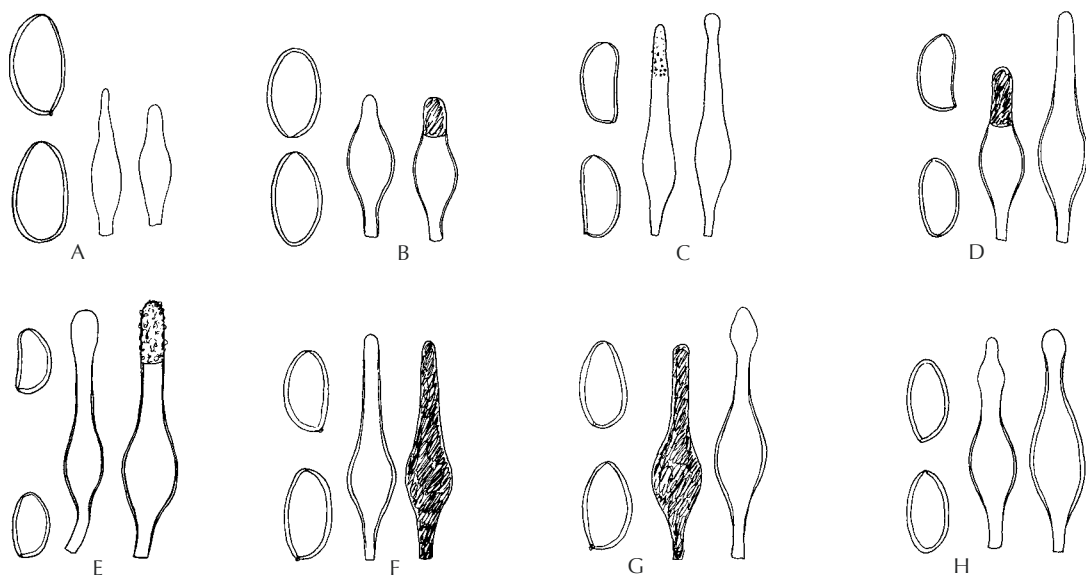


Fig. 843. Spores and pleurocystidia: A: *Pholiota henningsii*, B: *P. scamba*, C: *P. lenta*, D: *P. lubrica*, E: *P. elegans*, F: *P. highlandensis*, G: *P. spumosa*, H: *P. mixta*.

Key A: Subgen. *Flavidula* (Fr.) Singer

1. Cap dry, exceptionally sticky. Cap 10-50 mm, at first sulphur yellow, later orange brown to rusty, at least at the centre, $\pm$ fibrillose scaly; gills pale yellow, then rusty; stem 30-50 x 2-6 mm, cylindrical or with a subbulbous base, often curved, sulphur yellow or brown towards the base, with a distinct, but fugacious ring or ring-zone; taste bitter. Sp 7-9 x 4-5.5 μ m, slightly phaseoliform, without or with a very indistinct germ pore (fig. 839A); cheilocystidia mostly capitate. On dead wood of various deciduous trees, especially *Tilia* and *Betula*; summer to autumn; occasional in hemib.-suba., rare in temp.; DK (vu), FI (lc), NO (lc), SE (lc). – GBW 4:394, Holec 46-47, Lud 65.11, R&H 355, ☉.
P. tuberculosa (Schaeff.: Fr.) P. Kumm. (*Pleuroflammula t.* (Schaeff.: Fr.) Horak, *P. curvipes* (Pers.) Quél.)
 - Cap sticky to viscid or slimy 2
2. Cap 25-80 mm, sticky to slimy. Cap initially pale yellow, with age becoming orange or rusty brown from centre, covered with small appressed brown scales; gills initially pale yellow; stem 20-70 x 3-8 mm, with a narrow, but distinct ring; taste bitter. Sp 7-9 x 4-5.5 μ m, slightly phaseoliform, without or with a very indistinct germ pore (fig. 839B); cheilocystidia variable, $\pm$ clavate, exceptionally capitate. On wood or other debris, generally on buried wood in lawns or old rubbish dumps; autumn; rare in temp.-hemib., very rare in southern bore., often misidentified and confused with *P. tuberculosa*, and some records may be misidentifications; DK (vu), FI (dd), NO, SE. – B&K 4:433, Däh 623, Holec 48-49, Lud 65.10.
P. lucifera (Lasch) Quél.
 - Cap 70-100 mm, very slimy. Cap convex with a low, obtuse umbo, whitish towards the margin, gradually ochraceous yellow at centre, when young with faint, appressed scales; stem up to 80 x 7-10 mm, cylindrical, straw, with minute, floccose scales; taste mild. Sp 5-6.5 x 3.5-4 μ m, ovoid to slightly phaseoliform in side view, without germ pore (fig. 839C); cystidia absent. On wood; autumn; only known from the type locality in central FI on a fallen trunk of *Populus* in a virgin forest; FI (CR, EH: Strand). – Holec & Niemelä 2000, ABF 37:80, Sieniop 248.
P. mucigera Holec & Niemelä
Note: the taxonomic position is uncertain, and its placement in subgen. *Flavidula* is preliminary.

Key B: Subgen. *Pholiota*

1. Cap smooth or with thin, appressed scales 2
 - Cap with distinct, $\pm$ erect scales 6
2. Cap distinctly red at centre; taste bitter. Cap 20-70 mm, hemispherical to low convex, at first with incurved margin, dry or slightly viscid, $\pm$ orange red, but mostly paler yellowish towards the margin, when young covered with a thin, whitish veil; gills pale yellow; stem 30-100 x 4-10 mm, cylindrical, often curved, pale yellow but rusty towards the base, with an indistinct ring-zone; flesh orange red in the cap. Sp 5.5-8 x 3.5-4.5 μ m, ovoid-ellipsoid, exceptionally slightly phaseoliform (fig. 839D); cheilocystidia narrowly cylindrical; gill edge sterile; chrysocystidia clavate, numerous. Saprotrophic on decayed wood of conifers, mostly in humid areas; summer to autumn; common in hemib. and southern bore., occasional in temp. and middle to northern bore., in FI north to OP; DK (lc), FI (lc), NO (lc), SE (lc). – FAD 121D, Holec 97, Lud 65.20, Phil 212b, Ves 319, ☉.
P. astragalina (Fr.: Fr.) Singer
 - Cap not distinctly red; taste mild or only slightly bitter 3
3. On coniferous wood in forests. Cap 10-40 mm, at first with incurved margin, then convex, slightly viscid, yellowish brown to apricot with yellowish margin, when young with fibrillose, white veil remnants; gills narrow, pale citrine yellow, later yellowish brown; stem 30-75 x 3-5 mm, cylindrical, but often curved, pale to yellowish brown with floccose veil

remnants; smell indistinct; taste mild or slightly bitter. Sp 5-6 x 3-3.5 μm , ellipsoid-ovoid, at least some slightly phaseoliform (fig. 839E); chrysocystidia mucronate. In small clusters on decaying wood of conifers, mostly *Picea*; summer to autumn; rare, but locally occasional in hemib.-bore., seemingly more common in humid areas; FI (vu), NO (LC, AA: Valle), SE. Montane in central Europe and NW USA. – Holec 93, Jordst 8(3), Lud 65.29.

P. subochracea (A.H. Sm.) A.H. Sm. & Hesler (*P. nematolomoides* (J. Favre) M.M. Moser)

- On the ground or on deciduous, exceptionally coniferous wood 4
- 4. Cap 25-70 mm; on decaying wood of deciduous, rarely coniferous trees, but often on soil in lawns and pastures without visible wood. Cap viscid, pale yellow green or lemon yellow, olive to greenish brown at least with age, covered with thin, appressed, brownish scales that may disappear with age; gills olive brown with paler edge; stem 30-100 x 3-10 mm, cylindrical, dry, whitish to pale yellow, but towards the base gradually brown, scaly like the cap; taste mild; smell indistinct. Sp 5.5-8 x 3.5-4.5 μm , ellipsoid to slightly phaseoliform (fig. 839F); chrysocystidia usually clavate to slightly mucronate, scattered; cheilocystidia cylindrical-subcapitate, numerous. Autumn; common in temp.-hemib., occasional in southern-middle bore., rare in northern bore.; DK (LC), FI (LC), NO (LC), SE (LC). – Däh 625, Lud 65.13, Phil 214d, R&H 458, Ves 316, ☉.

P. gummosa (Lasch) Singer

- Cap 5-40 mm; in moist habitats 5
- 5. On wood of *Salix*, rarely on *Populus* or in moist meadows. Cap 8-40 mm, viscid to glutinous, pale yellow, towards centre gradually orange brown, at least with age, without or with small, indistinct scales; gills at first whitish or pale yellow, when mature brown; stem 20-60 x 2-4 mm, often flexuose, pale yellowish in upper part, downwards darkening to brownish with age; smell and taste indistinct. Sp 6-8 x 3-4.5 μm , oblong, slightly phaseoliform in side view (fig. 839G); cheilocystidia cylindrical with $\pm$ capitate apex, numerous; chrysocystidia clavate to mucronate. Generally in wetlands, on decaying wood of *Salix* or on roots of various graminids (*Cyperaceae*, *Poaceae*); autumn; rare in temp.-hemib., very rare in southern bore.; DK (DD), FI (NT), SE (LC). – Bol Bres 38:72, FAD 122C, GBW 4:376, Holec 78, Lud 65.26, ☉.

P. conissans (Fr.) Kuyper & Tjall.-Beuk. (*P. graminis* (Quél.) Singer, *P. inaurata* (W.G. Sm.) M.M. Moser)

Note: *P. graminis*, growing in open habitats, has often been treated as a species of its own, but molecular methods has shown it to be identical with *P. conissans*.

- On *Phragmites*. Cap 5-23 mm, dry, straw yellow to rusty brown, covered with appressed, fibrillose, rusty scales; stem 10-30 x 1-2 mm, cylindrical, pale yellow but towards base gradually brownish, veil remnants thin and evanescent. Sp 5-7 x 2.5-3 μm , subcylindrical (fig. 839H), very pale; cheilocystidia cylindrical with a subcapitate apex; chrysocystidia fusiform-clavate, abundant. On rhizomes and basal parts of stems in wet places; autumn; very rare in temp.; DK (DD). – FAD 124B (as *Naucoria* p.), Lud 65.25.

P. pityrodes (F. Brig.) Holec

- 6. Cap and stem with bright sulphur-yellow scales. Cap 20-80 mm broad, dry or sticky but not glutinous, bright orange yellow to yellow, covered with $\pm$ erect scales; gills sulphur yellow, then rusty; stem 30-90 x 4-10 mm, sulphur yellow, scaly below the thin, evanescent annulus; taste $\pm$ bitter. Sp 4-5 x 2-3 μm , ellipsoid to slightly phaseoliform, thin-walled, without a distinct germ pore (fig. 839I); cheilocystidia numerous, shape rather variable, but usually obtuse and hyaline; pleurocystidia similar, but mostly as chrysocystidia. Saprotrophic on old stumps or other kinds of dead wood, generally from conifers, but sometimes also from deciduous trees, e.g. *Alnus* and *Corylus*, in small clusters or individually; summer-autumn; common in temp.-middle bore., occasional in northern bore., rare in suba.; DK (LC), FI (LC), NO (LC), SE (LC). – Däh 619, Lud 65.1, Phil 212a, R&H 456, Ves 316, ☉.

P. flammans (Batsch: Fr.) P. Kumm.

- Scales on cap brownish to almost black 7

7. Terrestrial, single or in small clusters. Cap 30-70 mm, dry or sticky, pale straw at the margin, yellowish brown at the centre or with age, covered with thin, brownish, appressed or somewhat erect scales; gills at first pale, then ochraceous brown; stem 45-85 x 5-10 mm, cylindrical or tapering towards the base, straw-coloured, but $\pm$ browning downwards, scaly like the cap; smell aromatic; taste mild. Sp 5.5-7.5 x 3.5-4.5 μ m, ellipsoid to slightly phaseoliform, with a germ pore (fig. 841A); chrysocystidia mostly obtusely fusiform, numerous. In coniferous forests, but also e.g. in parks near *Pinus*, in two cases on old tracks, probably connected to some kind of wood remnants in the soil; summer to autumn; seemingly very rare, hitherto only known from three localities in SE (Dlr, Jmt) and one in FI (U: Tammisaari, PS: Kuopio); FI (DD), SE (LC).
P. lundbergii Jacobsson
 - On wood, often in large clusters 8
8. Cap dry. Cap 40-200 mm, exceptionally larger, $\pm$ umbonate, at first yellow, becoming rusty brown, at least at centre, covered with numerous, $\pm$ erect scales; gills at first yellowish with an olive flush; stem 60-250 x 5-20 mm, cylindrical or frequently tapering towards the base, pale yellowish above the fibrillose ring or ring zone, downwards rusty brown and scaly like the cap; taste and smell indistinct. Sp 6-8 x 3.5-5 μ m, ellipsoid, with a distinct germ pore (fig. 841B); chrysocystidia clavate or mucronate, numerous. In large clusters at the base of living or recently dead deciduous trees of any kind, often cultivated trees in gardens and parks, rather frequent also on *Picea*, but rarely on other coniferous trees; autumn, often late, sometimes summer; common in temp.-middle bore., occasional in northern bore.-suba.; DK (LC), FI (LC), NO (LC), IS (Ve), SE. – Däh 618, Jordst 24(2):14, Phil 212c, R&H 456, Ves 317, .
P. squarrosa (Weigel: Fr.) P. Kumm.
 - Cap viscid to slimy, lustrous when dry 9
9. Sp < 7 x 4 μ m 10
 - Sp on av > 7 x 4 μ m 11
10. Cap very glutinous, scales pointed and blackish. Cap 30-100 mm, lemon to chrome yellow with rather numerous scales, sometimes disappearing in old frb; stem 60-140 x 5-15 mm, equal or tapering downwards, pale yellow but soon becoming brownish from the base, with an evanescent ring, under the ring scaly like the cap. Sp 5-7 x 3-4 μ m, ellipsoid to ovoid (fig. 841C); chrysocystidia fusiform, clavate or mucronate. In clusters on roots and stumps or at the base of living or recently dead deciduous trees, most frequent on *Fagus*, but also known from *Quercus* and *Betula* and some records from *Picea*, in central Europe also from *Abies* and *Pinus*; autumn; rare in temp.-hemib., but occasional in DK; DK (LC), NO (NE, Vestf: Tønsberg), SE (LC). – Däh 621, Lud 65.3, R&H 457.
P. jahnii Tjall.-Beuk. & Bas (*P. adiposa* (Batsch: Fr.) P. Kumm. s. Ricken, J.E. Lange, *P. muelleri* (Fr.) P.D. Orton s. auct.)
 - Cap viscid, scales small but numerous, fibrillose, conical and upraised, brownish. Cap 40-120 mm, ground colour very pale yellowish, but becoming rusty with age at centre; stem 50-120 x 5-15 mm, cylindrical, whitish to pale yellow, densely covered with erect, tomentose scales below the often indistinct ring; smell pleasant, aromatic. Sp 4.5-6.5 x 2.5-3.5 μ m, ellipsoid to slightly phaseoliform in side view (fig. 841D); cystidia lageniform to fusiform and often mucronate, numerous on the edge, scattered elsewhere; chrysocystidia rather rare. Saprotrophic on wood of deciduous trees, e.g. *Betula*, *Populus*, *Sorbus*, *Salix* and *Fagus*, often in virgin forests or on old dead trees in parks; summer to autumn; rare in hemib.-southern bore., very rare in temp.; DK (CR, Sj: Jægersborg Dyrehave), FI (NT), SE (VU). Rare also in central and eastern Europe. – Holec 65, Jordst 24(2):14-15, Lud 65.6, Sieniop 249, Svp 26:4.
P. squarrosoides (Peck) Sacc.

11. Cap viscid, not strongly glutinous; on larger species of *Salix*, e.g. *S. fragilis* and *S. pentandra*; cheilocystidia clavate, often broadly. Cap 50-150 mm, yellow to yellowish rusty, scales often large and triangular; gills pale beige yellow when young; stem 50-150 x 5-25 mm, often curved, pale yellow at top, gradually rusty towards base. Sp 7.5-11 x 5-6.5 μm , ellipsoid, with a distinct germ pore (fig. 841E); cheilocystidia clavate but wider than in *P. adiposa*; chrysocystidia abundant. Fasciculate on living or dead wood, often on banks of rivers and lakes, also in parks; autumn; occasional in temp., rare in hemib.-southern bore.; DK, FI (V: Turku, EH: Tammela), NO, SE. – Holec 49, Lud 65.5.
P. cerifera (P. Karst.) P. Karst. (*P. aurivellus* (Batsch: Fr.) P. Kumm. s. auct. p.p.)
 - Cap very glutinous when moist, lustrous when dry; cheilocystidia variable, but not broadly clavate
12. Sp 7.5-10 x 5-6 μm ; mostly on *Fagus*. Cap 50-150 mm broad and rather fleshy, at first hemispherical with involute margin, expanded to convex with or without an umbo, ground colour golden yellow, with age orange brown, at least at centre, with concentrically arranged, rather large, dark brown and mostly appressed scales; stem 50-200 x 8-30 mm, generally cylindrical, often curved, below the ring-zone scaly like the cap; taste and smell indistinct. Sp ellipsoid, rather thick-walled and dark, with a distinct germ pore (fig. 841F); cheilocystidia narrowly clavate; pleurocystidia clavate or rather variable, often as chrysocystidia or completely filled with pigments and deformed. Fasciculate on wood as a parasite on living stems or saprotrophic on stems and fallen trunks, often high above the ground, also on several kinds of tree species, but rarely conifers; autumn; common in temp., occasional in hemib.; DK (LC), FI (DD), NO, SE. – R&H 457, Ves 317, ☉.
P. adiposa (Batsch: Fr.) P. Kumm. (*P. aurivellus* (Batsch: Fr.) P. Kumm. s. auct. p.p.)
 - Sp 6.5-9 x 4.5(-5.5) μm ; mostly on *Alnus* and *Betula*. Cap 50-150 mm, rather fleshy, at first hemispherical with involute margin, expanded to convex with or without umbo, ground colour golden yellow, with age orange brown, at least at centre, with concentrically arranged, rather large, dark brown and mostly appressed scales; stem 50-200 x 8-30 mm, generally cylindrical, often curved, below the ring-zone scaly like the cap; taste and smell indistinct. Sp ellipsoid (fig. 841G), slightly more thin-walled and germ pore somewhat less distinct than in *P. adiposa*; pleurocystidia clavate or rather variable, often as chrysocystidia or completely filled with pigments and deformed. Also noted on several other tree species including *Picea*, and outside the *Fagus* region more common than *P. adiposa*; autumn; occasional in temp.-southern bore., rare in middle-northern bore; DK, FI (LC), NO (LC), SE (LC). – Holec 55, Lud 65.4, Sieniop 247.
P. limonella (Peck) Sacc.
 Note: macroscopically *P. limonella* is inseparable from *P. adiposa*.

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Key C: Subgen. *Flavidula* (Fr.) Singer

1. On *Sphagnum* or other mosses. Cap 10-50 mm, viscid, yellowish, at centre $\pm$ orange brown, with floccose veil remnants; stem 25-60 x 1-4 mm, whitish to pale yellow, becoming brown towards the base, initially floccose-fibrillose. Sp 8-10 x 4.5-5.5 μm , ellipsoid, thick-walled and strongly brown, with a small germ pore (fig. 843A); cystidia lageniform to fusiform. In (only calcareous?) fens; autumn, exceptionally summer; very rare in temp.-hemib.; DK (CR Sj: Gribskov, Lyngby Åmose), SE (vu, Srm, Upl). – Bres 774, Holec 142, Lud 65.23.
P. henningsii (Bres.) P.D. Orton
 - On wood or debris or on soil
2. Cap 5-30 mm, thin, white to pale brownish. Cap viscid, fibrillose when dry; stem 10-35 x 1-4 mm, cylindrical, whitish, but becoming brown towards the base, with an indistinct ring-zone. Sp 7-10 x 4.5-6 μm , ellipsoid to ovoid, with a distinct germ pore (fig. 843B); cystidia clavate with a projecting, obtuse apex or utriform, numerous. On and around stumps and

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other wood debris from conifers, mostly *Picea*, exceptionally also on deciduous wood or on soil, single or in small fascicles; summer to autumn; occasional in temp.-suba.; DK (LC), FI (LC), FO, NO (LC), SE (LC). – B&K 4:438, Jordst 22(3):38, Lud 65.9, Phil 214b, R&H 459, ☉.

P. scamba (Fr.: Fr.) M.M. Moser

- Cap larger and more fleshy, usually darker 3
- 3. Sp ± phaseoliform in side view 4
- Sp ellipsoid to ovoid in side view 6
- 4. Cap at first whitish, but with age and especially at the centre pale beige brown. Cap 30-80 mm, strongly glutinous in moist weather, slightly lustrous when dry, when young with distinct, white, triangular veil remnants, especially at the margin; gills at first pale yellowish brown; stem 35-100 x 4-12 mm, often widened towards base, often curved, browning towards the base and with floccose white veil remnants below the ring-zone; smell somewhat aromatic; taste mild. Sp 6-8 x 3-4.5 µm, ± phaseoliform in side view, with a rather indistinct germ pore (fig. 843C); cystidia lageniform to fusiform, sometimes with yellow contents in the neck, numerous. On woody debris, decaying leaves, needles, etc., most frequent in *Fagus* forests, but may be found in all kinds of forests, also coniferous; mostly in late autumn; common in temp.-suba., in FI north to PeP; DK (LC), FI (LC), NO (LC), SE (LC). – Däh 624, Lud 65.14, Phil 214a, R&H 458, ☉.

P. lenta (Pers.: Fr.) Singer

- Cap more vividly coloured 5
- 5. Cap predominantly reddish brown, especially at the centre, paler at margin, at least with age. Cap 30-85 mm, slimy, strongly glutinous, when young with white floccules from veil; gills long pale with a weak yellow tinge; stem 35-90 x 5-12 mm, initially whitish and floccose below the ring-zone, darkening towards base. Sp 6-8 x 3-4.5 µm, ± phaseoliform in side view, with a rather indistinct germ pore (fig. 843D); cystidia lageniform to fusiform, sometimes with yellow contents in the neck, numerous. On dead wood or other debris of deciduous and coniferous trees, e.g. old stumps, strongly decayed fallen trunks, buried wood or old leaves; late summer to autumn; common in bore, occasional in hemib. and suba.; FI (LC), NO (LC), SE (LC). – B&K 4:423, Lud 65.17.

P. lubrica (Pers.: Fr.) Singer (*P. decussata* (Fr.) M.M. Moser)

- Cap predominantly yellow, sometimes almost orange ochre at centre. Cap 40-100 mm, strongly glutinous, with whitish floccules from veil when young; gills pale to lemon or olive yellow; stem 40-100 x 5-10 mm, whitish and floccose below the ring-zone, becoming brown towards base. Sp 5-6.5 x 3-3.5 µm, ± phaseoliform in side view, with a very indistinct germ pore (fig. 843E), thin-walled and pale. On woody debris of deciduous, less often coniferous trees; autumn; rare in hemib.-bore., but may be overlooked being described recently; FI (LC), NO (NE), SE (LC). – Holec 128, Lud 65.18.

P. elegans Jacobsson

- 6. On burnt places. Cap 10-80 mm, glutinous, brownish orange, cinnamon, towards the margin gradually yellow, when young with whitish veil remnants at the margin; gills dull yellowish; stem 20-80 x 2-8 mm, whitish to pale yellow, ± rusty brown towards the base, with an indistinct ring-zone; smell indistinct; taste mild. Sp 6-8 x 4-5 µm, ellipsoid to ovoid in side view, with a small germ pore (fig. 843F), rusty brown; cystidia fusiform-lageniform with a long neck, often with yellowish contents, especially in the neck. On burnt wood of all kinds, bonfires, ashes, etc., usually less than 3 years old; rarely recorded also in open places without visible burnt material; most frequent in spring and autumn but may appear anytime when conditions are favourable; common and widespread in temp.-arc./alp.; DK (LC), FI (LC), NO (LC), SE (LC). – Lud 65.32, Phil 214c, R&H 459, Sieniop 246, Ves 319, ☉.

P. highlandensis (Peck) Quadr. (*P. carbonaria* (Fr.) Singer non A.H. Sm.)

- Not on burnt places 7

7. Cap with a distinct yellow hue. Cap 30-80 mm, viscid to glutinous, reddish brown at the centre, but gradually lemon to bright yellow towards margin; gills greenish yellow when young; stem 30-80 x 4-8 mm, distinctly yellow upwards, near the base rusty brown, with an evanescent ring-zone; taste slightly bitter. Sp 6-8.5 x 3.5-4.5 μ m, ellipsoid to ovoid in side view, with a small, but distinct germ pore (fig. 843G); cystidia fusiform or lageniform with a long neck, often partly filled with yellowish content, numerous. On woody debris of conifers, but sometimes seemingly on soil, in such cases probably connected to buried and strongly decayed wood chips; summer to autumn; common in hemib.-bore., occasional in temp., rare in arc./alp. and in areas with acid soil; DK (LC), FI (LC), NO (LC), SE (LC). – B&K 4:439, Däh 628, FAD 121C, Lud 65.24, R&H 460.

P. spumosa (Fr.: Fr.) Singer

- Cap without a distinct yellow hue. Cap 15-60 mm, viscid to glutinous, at centre brown or orange brown, gradually pale beige to whitish towards margin; stem 30-70 x 3-10 mm, pale, whitish or slightly yellowish, but becoming rusty brown towards the base, with an evanescent ring-zone. Sp 6-8.5 x 3.5-4.5 μ m, ellipsoid to ovoid in side view, with a small but distinct germ pore (fig. 843H); cystidia fusiform or lageniform with a long neck, often partly with yellowish content, numerous. Mostly terrestrial in coniferous or mixed forests, especially on sandy and acid soils, sometimes on woody debris; summer to autumn; widespread and common in hemib.-bore., occasional in temp., rare in DK; DK (LC), FI (LC), NO (LC), SE (LC). – Holec 107, Lud 65.12, R&H 460.

P. mixta (Fr.) Kuyper & Tjall.-Beuk.