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Thelephora subtestacea

(Bourdot & Galzin) Kõljalg, I. Saar & Svantesson

Figures 1–11

Tomentella galzinii subsp. subtestacea Bourdot & Galzin 1924 [1 : 144] ≡ *Tomentella subtestacea* (Bourdot & Galzin) Svrček 1958 [5 : 71] ≡ *Thelephora subtestacea* (Bourdot & Galzin) Kõljalg, I. Saar & Svantesson 2024 [3 : 83]

Basidiome effused, adherent, soft, tomentose to somewhat compact, up to 0.1 (0.2) mm thick.
Hymenophore when fresh mostly continuous, when dry finely discontinuous, reticulated, tufted, porulose, finely granulose, beige-brownish with a faint purplish tint when young with few spores to normally reddish brown (5YR 5–4/3–4) at maturity, rarely with dark brown spots (5YR 3/3).
Subhymenium slightly thickening, compact.
Subiculum indistinct, poorly developed.
Margin shortly or indefinitely thinning out, porulose, pruinose, concolour to paler than the hymenial surface.
Rhizomorphs absent or present, rare at the margin, seemingly absent in subiculum, more frequent in the substratum if well decayed; up to 0.1 (0.2) mm thick, compact and flexible, smooth and often sericeous, commonly with short cystidia with an apical brownish cap (60X) and so becoming finely dotted, golden to ochraceous or brownish.

Hyphal system monomitic; hyphae with mostly fibulate primary septa; scattered simple and adventitious septa in subicular and rhizomorphal hyphae.
Subicular hyphae almost regular, (3) 3.5–5 (6) µm diam, with thickening walls (0.4–0.8 (1) µm), normally branching at some distance from septa, subhyaline to yellowish, rarely light ochre.
Subhymenial hyphae more or less regular, 3–6 (8) µm, short-celled,

branching from clamps, with thin or thickening walls in deep subhymenium, subhyaline to yellowish, ochraceous or somewhat orange in mass.
Rhizomorphs when well developed built up by a core of straight and rarely branched hyphae with scattered simple and fibulate septa, up to 8 µm wide, surrounded by progressively more branched and short-celled hyphae 4–5 µm diam becoming often irregular, sinuous, often with elbow-like bends and localized thickenings ending in nets of richly branched thin hyphae 2–4 µm wide with relatively thick walls, scattered clamps and frequent adventitious septa, subhyaline to yellowish, ochraceous in mass. Cystidia rare to common on surface, normally easily to find, hyphoid, slightly tapering with obtuse or very slightly subcapitate apex, 30–50 µm long, sometimes with an intercalary fibulate septum, with thin to slightly thickening walls especially toward the base, hyaline to subhyaline.
Cystidia hyphoid, obclavate or slightly ventricose, sometimes bottle-shaped, slightly tapering but mostly with obtuse or subcapitate apex, (20) 25–50 (60) µm long, 3–5 (6) µm wide at top, 4–7 (8) µm at the lower half, of subhymenial origin, enclosed or slightly projecting, rarely with 1 (2) simple or fibulate septa, with thin or thickening walls, hyaline to yellowish, sometimes with ochraceous content.
Basidia narrowly clavate, sinuous, narrowly utriform, (25) 30–50 µm long, 6–8 (9) wide at top, 5–8 µm at the lower middle; (2) 4 sterigmata 4–5.5 (6) µm long and 1–1.5 µm wide at the base, hyaline to yellowish, sometimes with ochraceous or reddish brown content.
Basidiospores irregular to lobed, echinulate, crowns sometimes present, thick-walled, light to dull yellowish brown, rarely with a large guttula, some entirely coloured (dark) reddish brown; (6.4) 7.0–8.5 (9.0) µm long; **lateral face** subregular, irregular or slightly 2-3-lobed (4.8) 5.2–6.5 (7.2) µm, Q = (1.1) 1.2–1.45 (1.55); **frontal face** often isodiametric, irregularly triangular to more or less 3-lobed, sometimes asymmetrically, (5.8) 6.4–7.8 (8.2) µm, Q = (0.9) 1–1.2 (1.3).
Aculei terete, infrequently slightly curved, single or rarely paired at the base, unevenly distributed, 0.5–1.7 (2) µm long and 0.4–0.8 (1) µm wide at the base.
Apiculus lateral toward the base or sometimes subcentral in side view, 1.2–2.2 µm across; hilum mostly indistinct.
Macrospores rare or infrequent, about 10 µm long, not differentiated.
Chlamydospores absent.
Incrustation: yellowish, orange, reddish brown, dark brown resinous matter or prismatic crystals common in context and at apex of cystidia, either hymenial or on rhizomorphs.
Chemical reactions: IKI—. CB: thin-walled elements faintly cyanophilous; basidiospores acyanophilous or with a cyanophilous thin wall layer. KOH—

Specimens examined

CANADA — **Ontario** – Opinicon Lake, Kingston, on *Thuja occidentalis* (charred wood), leg. M.J. Larsen, 11.IX.1966 (CFMR MJL-2053)

FINLAND — **Oulu Ostrobothnia** – Oulu, Hietasaari, on wood of a lying, decayed trunk of *Alnus incana*, leg. M. Kulju, 28.IX.2014 (OULU 0043555)

FRANCE — **Mayenne** – Brecê, Moulin de Favière, on wood of a decayed trunk of *Alnus glutinosa*, leg. M. Gérard, 9.X.2005 (em-8696, mg-2118) — **Pyrénées-Orientales** – Vernet-les-Bains, Py, on wood of a deciduous tree, leg. R. Hentic, 29.X.1995 (rh-9567) — **Seine-et-Marne** – Forêt de Fontainebleau, La Solle, parcelle 253, on wood of a lying, rather hard branch of *Fagus sylvatica*, leg. E. Martini, 30.X.2006 (em-9453) — **Var** – Bagnoles en-Forêt, on wood of a decayed branch of a deciduous tree, leg. E. Martini, 30.X.1997 (em-6361)

SWITZERLAND — **Ticino** – Gordevio, Saleggio, on wood of a lying, decayed trunk of *Fraxinus excelsior*, leg. E. Zenone, 7.X.2005 (em-8729) – Maggia, Salacion, on bark of a lying, strongly decayed trunk of a deciduous tree, leg. E. Martini, 28.VIII.2011 (em-11618) – Maggia, Saligin, on bark of a lying, rather hard branch of *Fraxinus excelsior*, leg. E. Zenone, 17.X.2005 (em-8698) – *ibid.*, on bark of a lying, rather hard twig of a deciduous tree, leg. E. Zenone, 17.X.2005 (em-8710) – *ibid.*, on wood of a lying, decayed branch of a deciduous tree, leg. E. Zenone, 17.X.2005 (em-8712) – *ibid.*, on wood of a lying, rather hard branch of *Juniperus communis*, leg. E. Zenone, 17.X.2005 (em-8722) – *ibid.*, on wood and bark of a lying, rather hard branch of *Juniperus communis*, leg. E. Zenone, 17.X.2005 (em-8724) – *ibid.*, on wood of a lying, rather hard trunk of *Juniperus communis*, leg. E. Zenone, 17.X.2005 (em-8728) – *ibid.*, on bark of a lying, decayed branch of a deciduous tree, leg. E. Zenone, 17.X.2005 (em-8755) – *ibid.*, on wood and bark of a lying, decayed trunk of a coniferous tree, leg. E. Zenone, 21.X.2005 (em-8748) – *ibid.*, on bark of a lying, decayed branch of *Pinus sylvestris*, leg. E. Zenone, 21.X.2005 (em-8751) – *ibid.*, on wood of a lying, decayed branch of *Pinus sylvestris*, leg. E. Zenone, 26.X.2006 (em-9682) – Meride, Bolle, on wood of a lying, decayed trunk of a deciduous tree, leg. E. Martini, 12.X.1994 (em-3848) – Meride, Meriggio, on wood of a lying, decayed branch of a deciduous tree, leg. E. Martini, 14.X.2006 (em-9184.2) – *ibid.*, on wood of a lying, decayed branch of a deciduous tree, leg. E. Martini, 14.X.2006 (em-9182) – Monte, Campora (acquedotto), on lying, strongly decayed wood of *Carpinus betulus*, leg. F. Delmenico, 13.XI.2005 (em-9658) – *ibid.*, on bark of a lying, rather hard branch of *Acer campestre*, leg. F. Delmenico, 13.XI.2005 (em-11707) – Monte, Craol, on lying, decayed wood of *Fraxinus excelsior*, leg. F. Delmenico, 10.XI.2007 (em-10412) – Novazzano, Valle della Motta, on bark of a lying branch of *Carpinus betulus*, leg. E. Zenone, 15.X.1992 (em-3287) – Ritorto, Dréom (Valle Bavona), on bark of a lying, decayed trunk of a deciduous tree, leg. E. Martini, 11.IX.1999 (em-6999) – *ibid.*, on wood of a lying, decayed trunk of *Tilia cordata*, leg. E. Martini, 24.VIII.2002 (em-8118) – Ritorto, Prèda (Valle Bavona), on bark of a lying, rather hard trunk of *Tilia cordata*, leg. E. Martini, 6.VIII.2011 (em-11576) – Ritorto, Rivera (Valle Bavona), on wood of a lying, strongly decayed trunk of a deciduous tree, leg. E. Martini, 9.X.2005 (em-8691) – Sabbione, Caslitt (Valle Bavona), on bark of a lying, rather hard branch of *Corylus avellana*, leg. E. Martini, 29.IX.2002 (em-8240) – Someo, on wood of a strongly decayed stump of a coniferous tree, leg. E. Martini, 13.XI.1993 (em-3643) – Someo, Da l'Ovi, on wood of a lying, strongly decayed branch of a deciduous tree, leg. E. Martini, 6.IX.1987 (em-1168)

USA — **New Mexico** – Cibola Natl. Forest, Sandia Peak, on *Populus*, leg. M.J. Larsen, 17.VIII.1968 (CFMF MJL-2717) – *ibid.*, on hardwood, leg. M.J. Larsen, 18.VIII.1968 (CFMR MJL-2762)

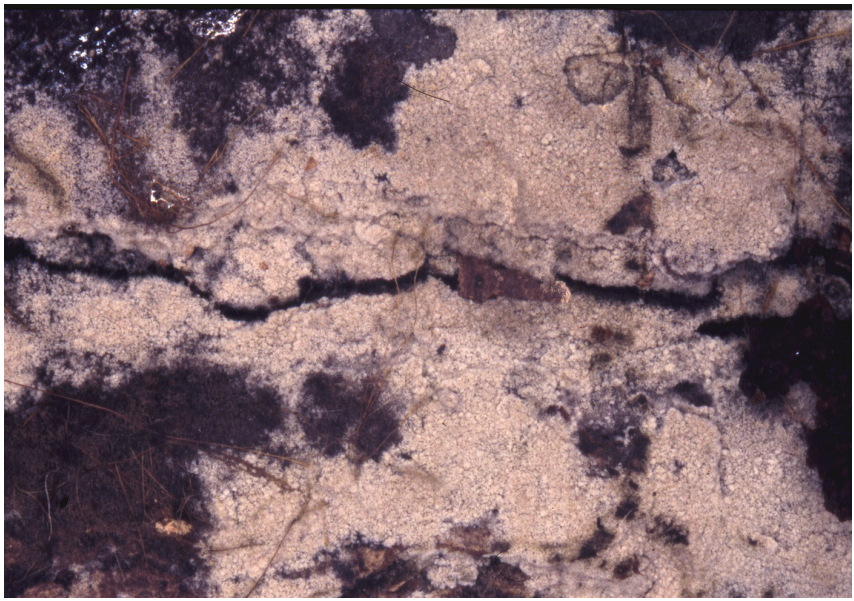

Fig. 1: Basidiome (fresh). Image width = 24 mm [em-1168]

Materials and methods

Specimens sampling and methodological details are described separately in this issue: Excerpts from *Crusts & Jells*, n° 0

References

[1] Bourdot, H. and Galzin, A. (1924). 'Hyménomycètes de France. X. Phylactériés'. *Bulletin de la Société Mycologique de France*, 40 (1-2): 105–162

[2] Kõljalg, U. (1996). '*Tomentella* (Basidiomycota) and related genera in Temperate Eurasia'. *Synopsis Fungorum*, 9: 1–213

[3] Kõljalg, U., Saar, I. and Svantesson, S. (2024). 'Merging the genus *Tomentella* with *Thelephora*'. *Folia Cryptogamica Estonica*, 61: 67–86. DOI: 10.12697/fce.2024.61.09

[4] Larsen, M.J. (1974). 'A contribution to the taxonomy of the genus *Tomentella*'. *Mycologia Memoirs*, 4: 1–145

[5] Svrček, M. (1958). 'Contribution to the taxonomy of the resupinate Thelephoraceous fungi'. *Česká Mykologie*, 12 (2): 66–77. URL: http://www.czechmycology.org/czech-mycology-content.php

Fig. 2: Basidiome (dry) [OULU 0043555]

Fig. 3: Basidiome (fresh). Image width = 22 mm [em-11576]

Fig. 4: Detail of the hymenophore (fresh). Image width = 9 mm [em-11618]

Fig. 5: Finely granulose hymenophore (dry). Image width = 9 mm [em-11576]

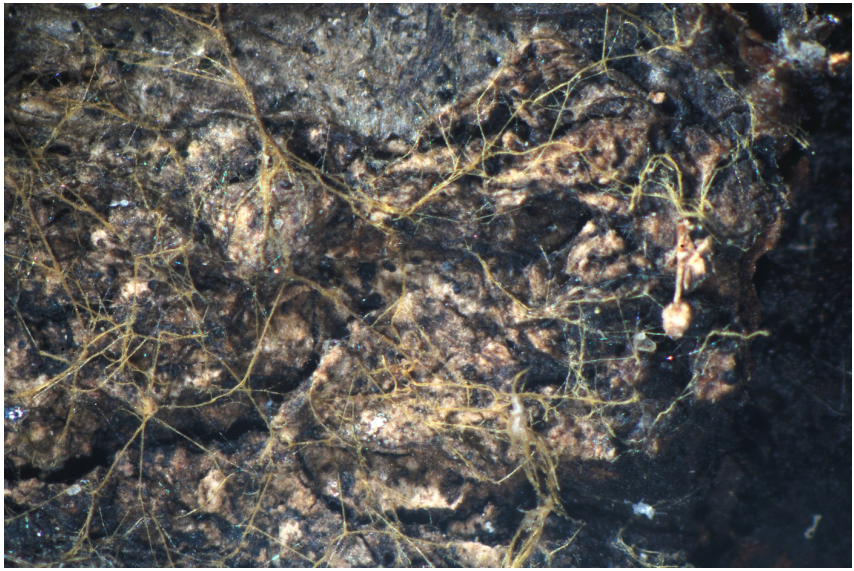

Fig. 6: Rhizomorphs. Image width = 9 mm [em-11618]

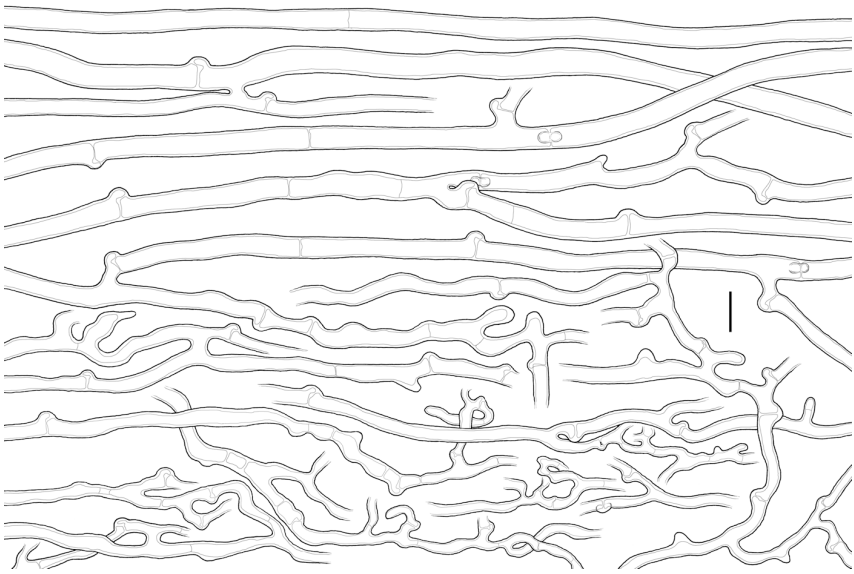

Fig. 7: Hyphae of a well developed rhizomorph: from core (above) to surface (below). Bar = 10 µm [em-8748]

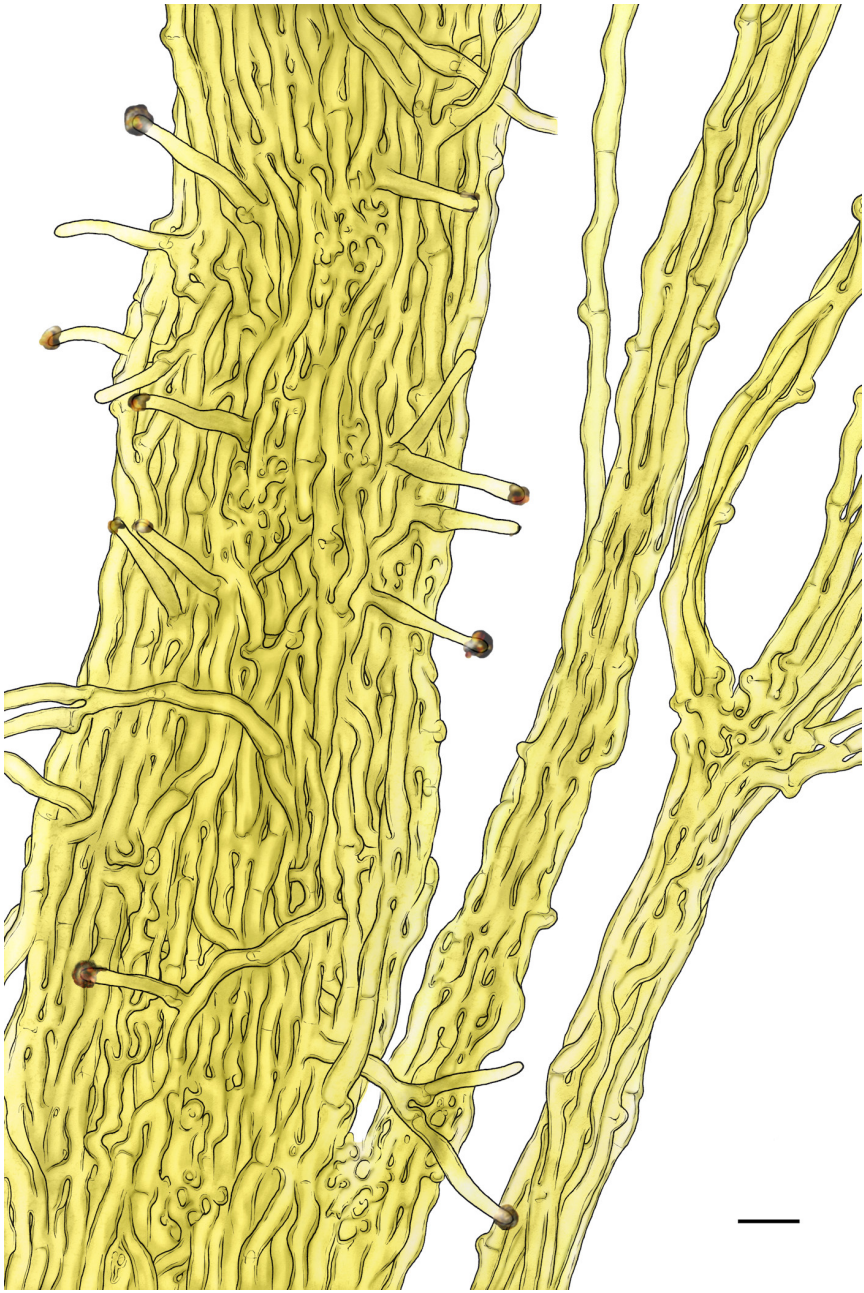

Fig. 8: Rhizomorph. Bar = 10 µm [em-8722]

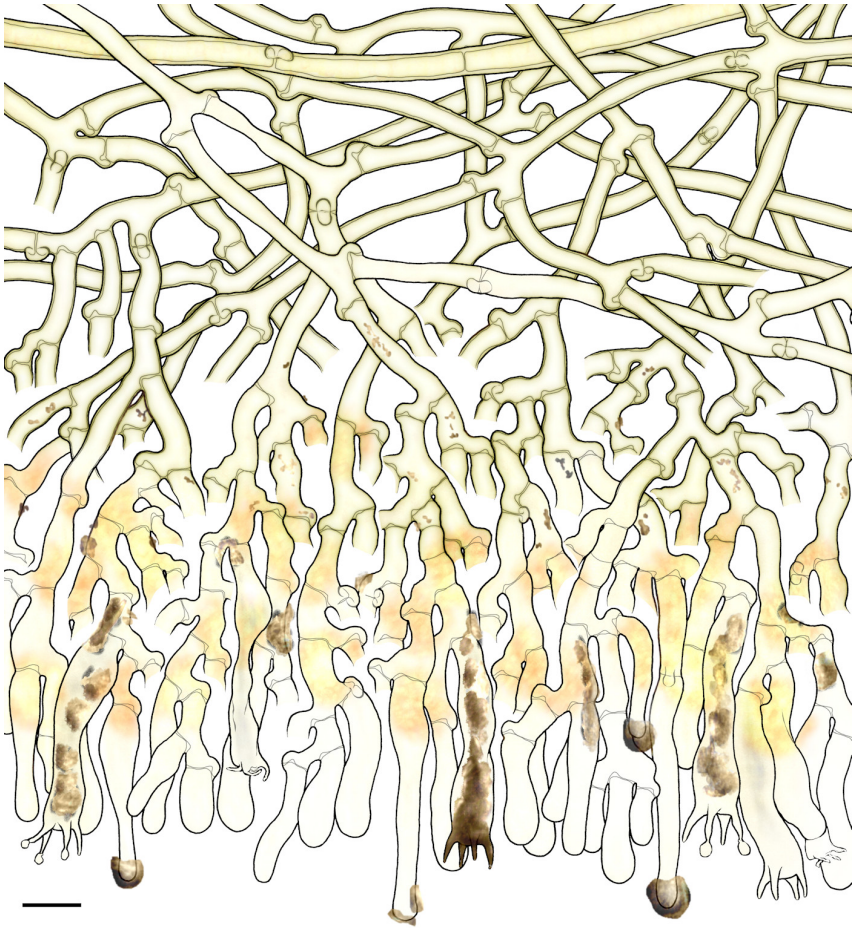

Fig. 9: Simplified vertical section through the basidiome. Bar = 10 µm [em-8724]

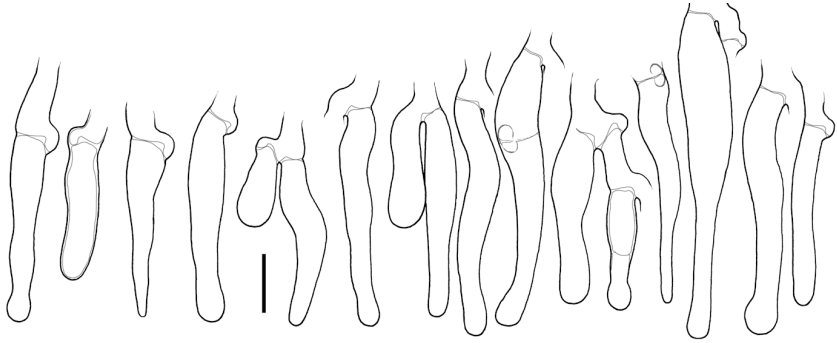

Fig. 10: Cystidia. Bar = 10 µm [em-8724]

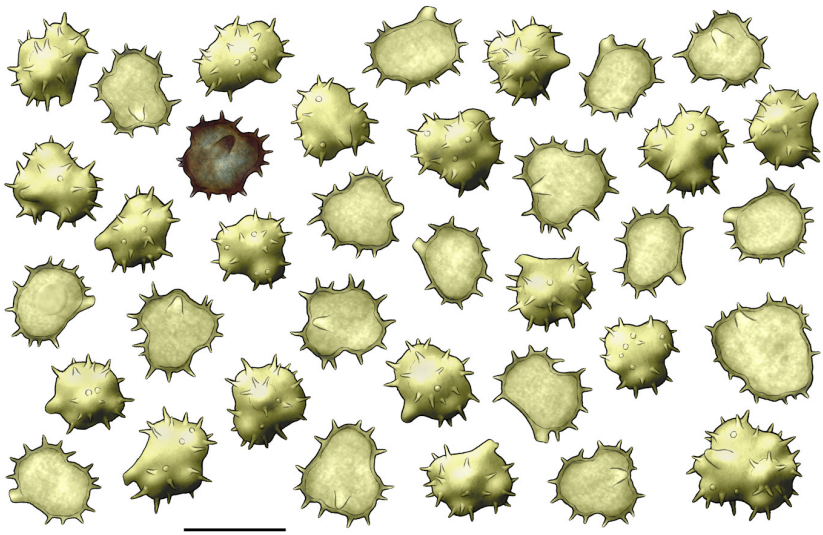

Fig. 11: Basidiospores; two macrospores in the lower right corner. Bar = 10 µm [em-8722]

Excerpts from Crusts & Jells
Descriptions and reports of resupinate Aphyllophorales and Heterobasidiomycetes

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Thelephora subtestacea (Bourdot & Galzin) Kõljalg, I. Saar & Svantesson

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