

№ 111

Tomentella botryoides
(Schwein.) Bourdot & Galzin

Figures 1–10

Thelephora botryoides Schwein. 1822 [11 : 109] ≡ *Thelephora olivacea* var. *botryoides* (Schwein.) Fr. 1828 [7 : 1 : 198] ≡ *Hypochnus botryoides* (Schwein.) Burt 1916 [5 : 226] ≡ *Tomentella botryoides* (Schwein.) Bourdot & Galzin 1924 [3 : 159]

= *Zygodesmus bicolor* Cooke & Ellis 1878 [6 : 6] K(M)!, also teste Larsen [10], Larsen [9]

= *Tomentella glandulifera* Höhn. & Litsch. 1906 [8 : 290] teste Larsen [10], Larsen [9], Bourdot and Galzin [3]

= *Thelephora granosa* Berk. & M.A. Curtis 1873 [2 : 149] K(M)!, also teste Larsen [10], Larsen [9]; Wakefield [12] ≡ *Hypochnus granosus* (Berk. & M.A. Curtis) Bres. 1903 [4 : 108] ≡ *Tomentella granosa* (Berk. & M.A. Curtis) Bourdot & Galzin 1924 [3 : 160]

= *Thelephora umbrina* Alb. & Schwein. 1805 [1 : 281] teste Larsen [9]

Basidiome effused, up to 0.2 (0.5) mm thick, separable, often becoming detached from the substratum, araneose to byssoid in immature parts, becoming pelliculose, soft, sometimes becoming membranaceous or somewhat crustose and brittle when dry.

Hymenial surface surface when young mostly discontinuous, distinctly dotted by brownish to blackish spots over the yellowish brown or brownish subiculum, when mature becoming continuous, smooth to finely granulose, rarely colliculose, dark brown to almost blackish with greyish or greenish hues (5YR-5Y 3–2.5/1–3). Collicoli (when present) rounded or somewhat polygonal, 3–5/mm, more or less easily separable from the hymenophore.

Subiculum sometimes scanty but often well developed and rather thick, araneose to hypochneid, soft, light yellowish-orange to yellowish brown (5–10YR 7–4/8 to 10YR 6–5/4), infrequently becoming brown, distinctly paler than the developed fertile surface.

Margin abrupt and not differentiated or almost sterile, shortly to indefinitely thinning out, araneose to byssoid, concolorous to paler than the subiculum.

Rhizomorphs present (sometimes not easily seen), normally common in subiculum, at the margin or in cracks of the substratum, up to 0.1 (0.2) mm thick, compact, becoming hard and rigid, with almost smooth surface, yellowish brown to dark brown in subiculum, brown to blackish when exposed at the margin or in the substratum.

Hyphal system dimitic or trimitic with skeletal hyphae associated with rhizomorphs.

Subhymenial hyphae regular, fibulate, (2) 3–4.5 μm wide, thin-walled, subhyaline to yellowish, often branching from clamps.

Subicular hyphae regular, fibulate, sometimes with intercalary simple septa, (2.5) 3–4 (5) μm wide, sometimes with simple anastomoses, with thin to thickening wall, yellow or yellowish, normally branching at some distance from septa.

Rhizomorphs starting as rather loose strands of fibulate generative hyphae in subiculum that eventually mix with some 2–3 μm wide hyphae with thickening walls with some simple septa and repetitive adventitious septa; then becoming structured with a central core of slightly wider generative hyphae up to 6 (7) μm in diam., surrounded by numerous hyphae 2–3 μm in diam., with thicker walls and numerous adventitious septa becoming ochraceous, ending in thick-walled skeletoid hyphae, 1.5–2.5 μm wide, sinuous, with elbow-like bends, sometimes branched, ochraceous to brownish, that toward the surface of the rhizomorphy become richly branched and build a thin, compact and labyrinthiform layer.

Cystidia absent.

Basidia narrowly clavate, often subcapitate, sinuous, (30) 40–55 (70) \times 6–8 (9) μm , fibulate at the basal septum, pale yellowish to ochraceous; 4 sterigmata up to 5 μm long and 1–1.5 μm wide at the base.

Basidiospores with irregular to lobed outline, in frontal view normally 3-lobed, in lateral view often broader toward the base, in polar view subglobose with sinuous or 3-lobed outline, from 5–6.5 (7) \times 4–5 \times 5–6 (6.4) μm to 5.5–8 \times 4.5–6 \times 6–7.5 μm , $Q^1 = 1.15\text{--}1.45$, $Q^2 = 0.9\text{--}1.15$, echinulate, yellowish to yellowish brown; aculei up to 0.8 (1.2) μm long or rarely longer, up to 1 (1.5) μm , blunt to tapering, often disposed in crowns over secondary lobes; apiculus prominent.

Chlamydospores absent.

Chemical reactions: IKI: –. CB: thin-walled hyphae and young basidiospores cyanophilous. KOH: hymenial elements with content turning (dark) greenish, greenish-blue, grayish-green to blackish with alkali. The reaction may be, at least partially, of oxydative type, thus variable in different preparations on account of mounting procedures involving KOH and air, and often stronger when the cover slide is slipped off and replaced;

subhymenial hyphae turning olivaceous or greenish; subicular hyphae remaining unchanged.

Incrustation: a lot of adhering yellowish to very dark brown resinous matter and sometimes also blue to bluish black granules on basidia, subhymenial hyphae and spores visible in water and LA and that dissolve in KOH producing a olivaceous-brown or greyish-green diffusate. Subicular hyphae often encrusted by hyaline matter in water but turning smooth with KOH and other dyes.

Voucher specimens

FRANCE — **Ille-et-Vilaine** – Landéan, Forêt de Forgères, vers Allée du Bignon, on bark of a lying, rather hard trunk of *Quercus sp.*, leg. M. Gérard, 2.XI.2007 (em-10409) — **Seine-et-Marne** – Forêt de Fontainebleau, Gorge aux Loups, parcelle 527, on bark of a lying, rather hard trunk of *Quercus sp.*, leg. E. Martini, 31.X.2006 (em-9438) – Forêt de Fontainebleau, Le Gros Fouteau, parcelle 268, on decayed leaves of *Fagus sylvatica*, leg. E. Martini, 2.XI.2006 (em-9433) — **Var** – Brignoles, Forêt de la Ste. Baume, on bark of a lying, decayed branch of *Quercus sp.*, leg. E. Martini, 12.XI.2013 (em-12018) — **Yvelines** – Bois de Verneuil, on lying, strongly decayed wood of a deciduous tree, leg. R. Hentic, 14.X.2006 (em-9313) – Forêt de Marly, on basidiome of a polypore, leg. R. Hentic, 23.VI.2007 (em-9961) – Forêt de Rosny, on bark of a lying, decayed branch of a deciduous tree, leg. R. Hentic, 15.IX.2007 (em-10118) – Forêt de Saint Germain, parcelle 54, on bark of a strongly decayed branch of *Carpinus betulus*, leg. R. Hentic, 8.XI.2008 (em-10694)

SWITZERLAND — **Thurgau** – Tägerwilen, Tägerwilerwald, on wood of a lying, strongly decayed branch of a coniferous tree, leg. E. Martini, 6.X.2006 (em-9161) — **Ticino** – Ascona, Madonna della Fontana, on decayed wood of *Betula pendula*, leg. E. Zenone, 12.I.1988 (em-1539) – Bignasco, Madonna di Monte, on bark of a lying, decayed trunk of *Betula pendula*, leg. E. Martini, 1.VIII.2011 (em-11542) – Casima, Ponte Breggia, on lying, decayed leaves of a deciduous tree, leg. F. Delmenico, 1.XI.2012 (em-11938) – Cevio, Consorzio, on wood of a lying, strongly decayed trunk of a coniferous tree, leg. E. Martini, 27.IX.2009 (em-10895) – Gordevio, Saleggio, on wood of a lying, decayed twig of a deciduous tree, leg. E. Martini, 11.X.1992 (em-3416) – *ibid.*, on wood of a lying, strongly decayed trunk of *Pinus sylvestris*, leg. E. Zenone, 2.XI.1996 (em-5980) – *ibid.*, on wood of a lying, strongly decayed trunk of a coniferous tree, leg. E. Zenone, 7.X.2005 (em-8720) – Losone, Piano di Arbigo, on wood of a lying, hard branch of *Quercus petraea*, leg. E. Zenone, 3.VII.1993 (em-6535) – Novazzano, Valle della Motta, on wood of a lying, hard trunk of a deciduous tree, leg. J. Keller, 23.IX.2004 (em-8418) – Ritorto, Dréom (Valle Bavona), on bark of a lying, decayed branch of *Tilia cordata*, leg. E. Martini, 4.IX.1994 (em-3765) – Sabbione, Caslitt (Valle Bavona), on lying, decayed wood of a deciduous tree, leg. E. Martini, 23.VII.1997 (em-6127)

USA — **New Jersey** – [Unknown locality], on *Cedrus sp.*, leg. J.B. Ellis 2732, holotype of *Zygodemus bicolor* Cooke & Ellis (K(M) 69224) — **New York** – Blomingsdale, on wood of a deciduous tree, leg. M.J. Larsen, 10.IX.1965 (NYS: M.J.Larsen 1588) – Rochester Junction, on *Quercus sp.*, leg. M.J. Larsen, 10.X.1965 (NYS: M.J.Larsen 1903) — **Pennsylvania** – [Unknown locality], on wood, leg. Michener 425, lectotype of *Thelephora granosa* Berk. & M.A. Curtis (K(M) 69242)

Materials and methods

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

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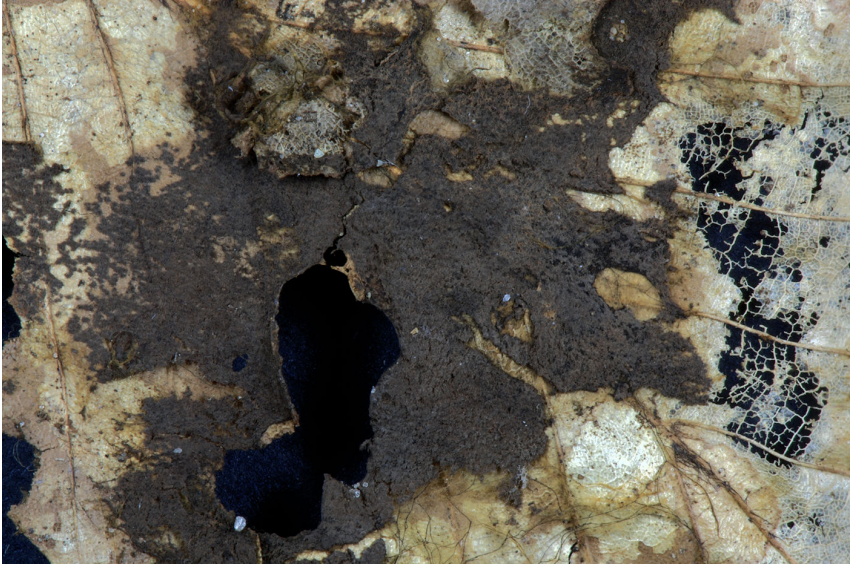


Fig. 1: Dried basidiome. Image width = 33 mm [em-9433]

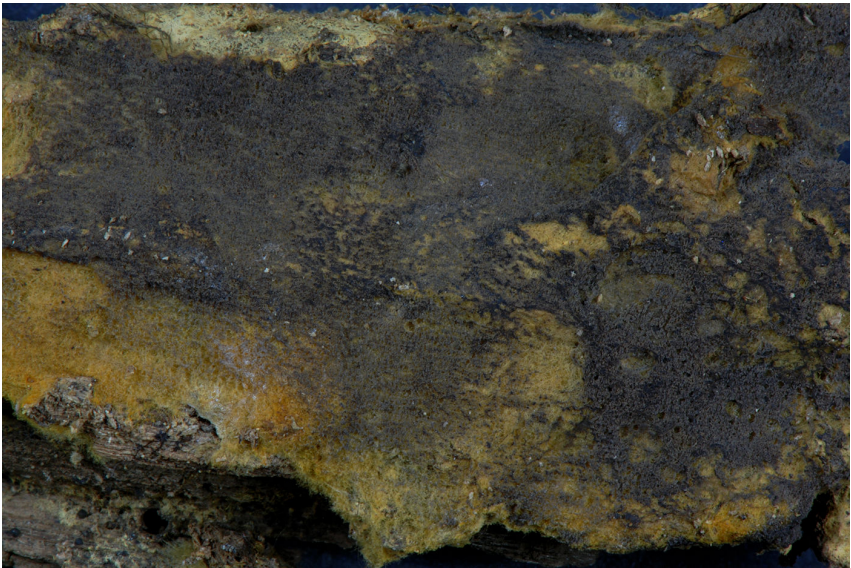


Fig. 2: Basidiome. Image width = 22 mm [em-9161]



Fig. 3: Basidiome. Image width = 9 mm [em-10895]



Fig. 4: Discontinuous hymenophore at the margin (dried basidiome). Image width = 9 mm [em-9161]



Fig. 5: Rhizomorphs at the margin (dried basidiome). Image width = 9 mm [em-9433]

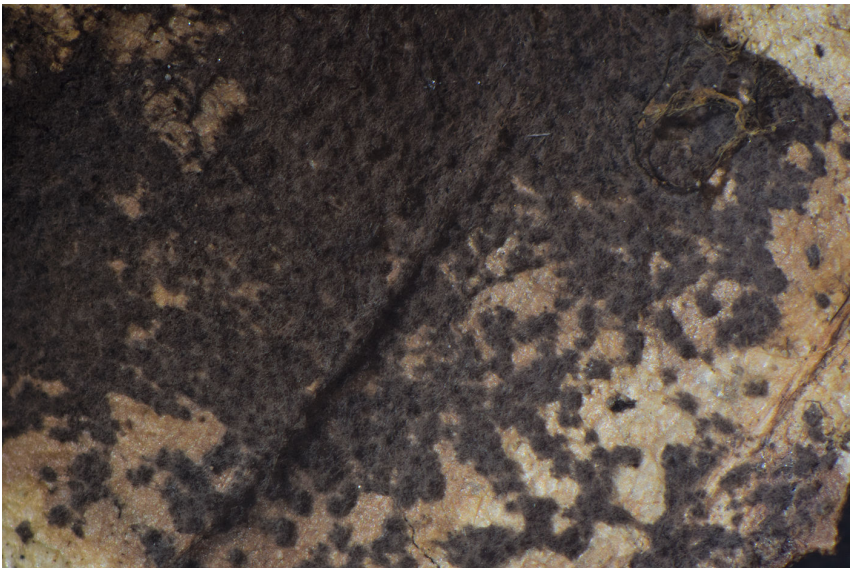


Fig. 6: Scattered patches of hymenophore developing at the margin (dried basidiome). Image width = 9 mm [em-9433]

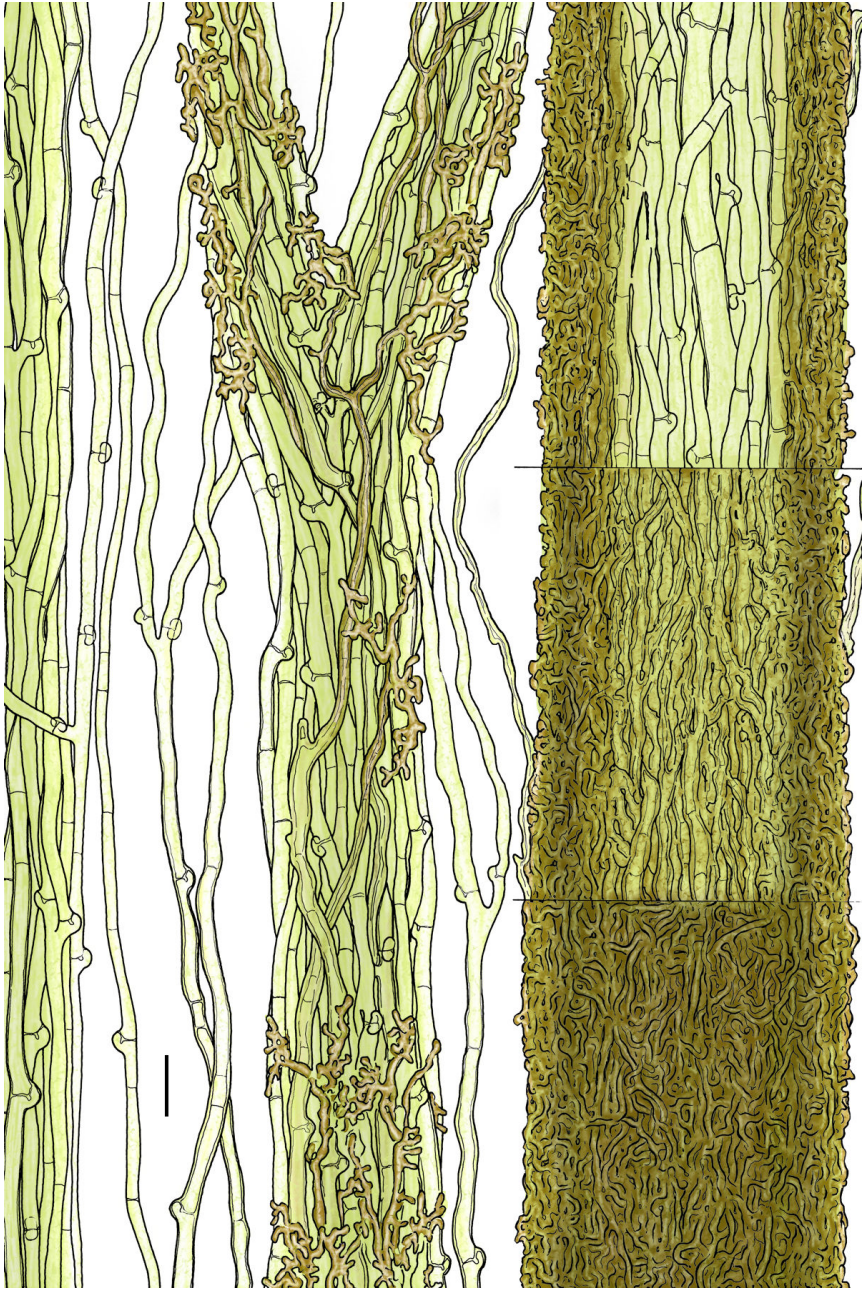


Fig. 7: Rhizomorphs. Bar = 10 μm [em-9161]

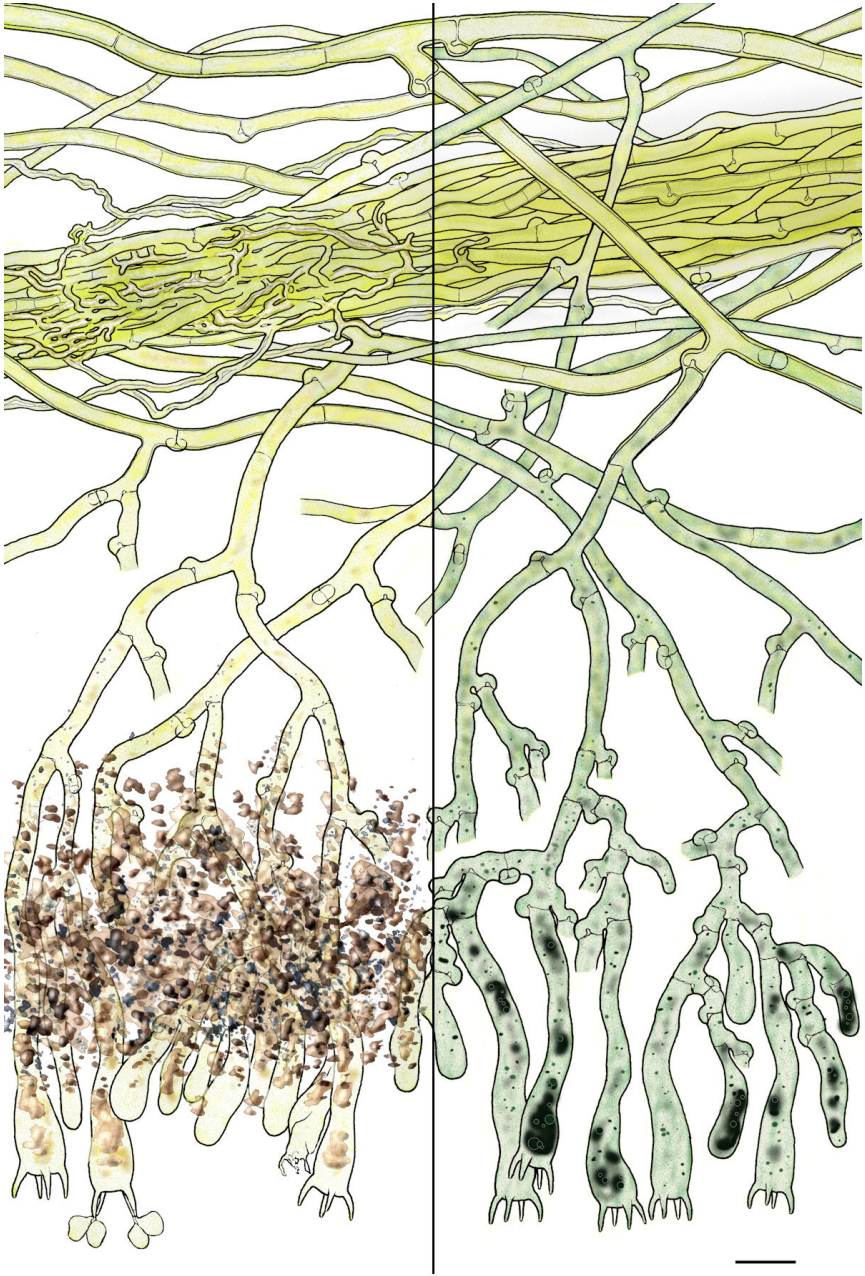


Fig. 8: Basidia, subhymenial and subicular hyphae, young rhizomorph; left in Lactic Acid, right in KOH. Bar = 10 μ m [em-9161]

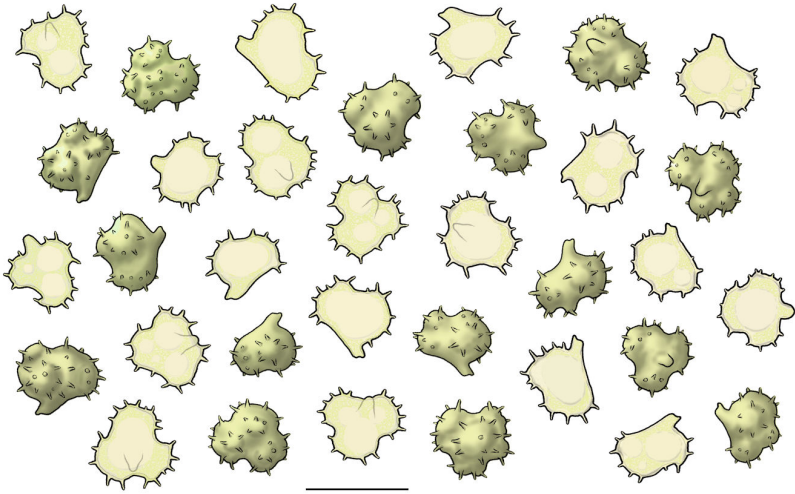


Fig. 9: Basidiospores. Bar = 10 μm [em-9161]

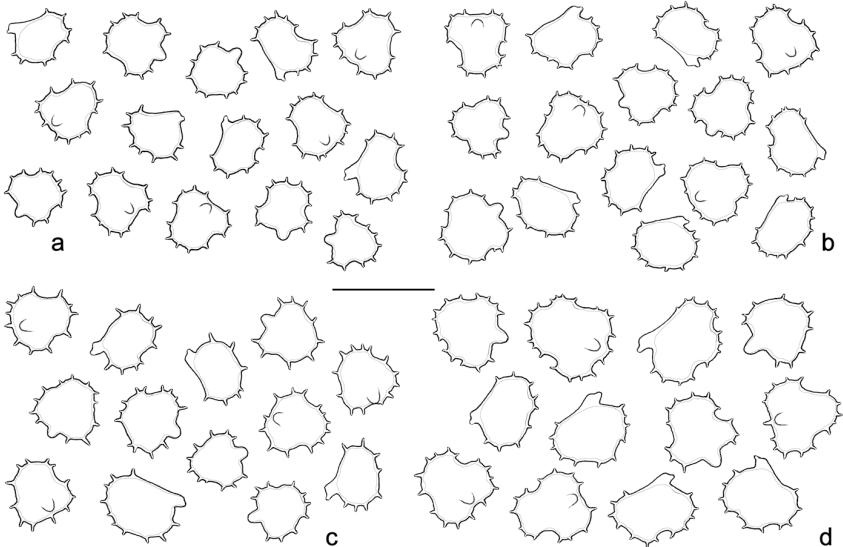


Fig. 10: Basidiospores from different collections: A) K(M) 69224, type of *Zygodemus bicolor* Cooke & Ellis. – B) K(M) 69242, lectotype of *Thelephora granosa* Berk. & M.A. Curtis. – C) NYS, M.J.Larsen 1903. – D) NYS, M.J.Larsen 1588 [bar = 10 μm]



Excerpts from *Crusts & Jells*

Descriptions and reports of resupinate Aphylophorales and Heterobasidiomycetes

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Released on: 1st June, 2017

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