Excerpts from *Orusts & Jells*

Descriptions and reports of resupinate Aphyllophorales and Heterobasidiomycetes

№ 89

Septobasidium alni

Figures 1–12

Septobasidium alni Torrend 1913 [2:84]

Basidiome effused, orbicular, membranaceous, up to 0.4 (0.5) mm thick. **Hymenium** built up by branched, more or less vertically oriented and rather loosely interwoven hyphae originating irregularly distributed probasidia, whey young papery to membranaceous, with smooth and continuous surface, ochraceous brown, becoming finely to strongly cracked and grey brown to very dark brown in the older parts, darker when wet. **Context** soft, felted, built up by loosely entangled hyphae and oriented in all directions, sustained by some pillars up to 0.1 mm tall and 80-150 μ m wide forming wide and low empty cells.

Subiculum thin to thick (20–200 μ m), compact, built up by more or less tightly packed hyphae running along the substrate, forming strands, tunnels and insects cages.

Margin determinate, distinct, shortly fimbriate, often with spiklets projecting over the surface and adhering strands, concolorous to paler or even whitish in active growing specimens.

Hyphal system monomitic. All hyphae regular, with simple septa; hymenial ones 1.5-2.5 (3) µm wide, with soon thickening wall, hyaline to yellowish; those of context and subiculum (3) 3.5-5 µm broad, thick-walled, yellowish to ochraceous; around cages and tunnels becoming more tightly arranged, indistinct and slightly darker.

Haustoria as irregularly coiled or spiralled hyphae, 1.5–2 μm broad, thin-walled, hyaline.

Probasidia irregularly shaped: globulose, pyriform, claviform, sprouting laterally on hyphae or terminal, shortly stipitate, rarely sessile, $8-35 \times 6-12 \mu m$, collapsing after the production of basidia and often showing the remains of 1–2 walls around the newly formed probasidium, hyaline.

Basidia cylindrical, straight, $50-60 \times 6-7 \mu m$, with 3 (-15) septa, easily detached from the probasidium; sterigmata up to 6 μm long.



Fig. 1: Basidiomes in situ [em-11494]

Basidiospores elongated and slightly curved, with a prominent apiculus at the one extremity of the convex side, (14) $17-24\times(3.5)$ 4–5 (5.5) µm, Q = 4–5.5, with 0–3 septa on the basidiome, 0–7 on spore print. Spores may produce small ellipsoid to narrowly ellipsoid budding cells, $3-6.5\times$ 1.4–2 µm.

Chemical reactions: CB-; IKI-.

Voucher specimens

FRANCE — **Corse** – **Tiuccia**, **bord de mer**, on standing, hard bark of *Pistacia lentiscus*, leg. R. Hentic, X.1991 (em-10912)

PORTUGAL — **Beira Litoral** – Coimbra, Santa Cruz Parc, Jardim da Sereia, on bark of a standing, hard trunk of *Laburnum sp.*, leg. E. Martini, 29.V.2011 (em-11494) – *ibid.*, on bark of a standing, hard trunk of a broadleaved tree, leg. M. & M. Cardoso, 10.XI.2013 (em-12097)

SPAIN — **Baleares** – Mallorca, Cala d'Or, on bark of a standing, hard twig of *Olea* europea, leg. F. Dämmrich, 10.V.2014 (FD 10817a, em-12147)



Fig. 2: Basidiomes [em-11494]



Fig. 3: Basidiome toward the margin, with noteworthy spiklets. Image width = 23 mm $[\mathrm{em}\text{-}11494]$



Fig. 4: Margin of a dried basidiome. Some scale insects at the left side of the image. Image width = 9 mm [em-11494]



Fig. 5: Dried basidiome. Image width = 21 mm [em-10912]



Fig. 6: Detail of the margin with black spiklets and fimbriae built over subicular threads. Image width = 4 mm $[\rm em\textsc{-}11494]$



Fig. 7: Section through the basidiome; arrow = direction of growth. Bar = 100 μm [em-11494]



Fig. 8: Basidia (left), probasidia (right). Bar = $10 \ \mu m \ [\text{em-11494}]$



Fig. 9: Section of the top layer. Bar = 20 μm [em-10912]



Fig. 10: Basidiospores from basidiome. Bar = $10 \ \mu m \ [\text{em-10912}]$



Fig. 11: Basidiospores from spore print, some with conidia [em-11494]



Fig. 12: Haustoria. Bar = $10 \ \mu m \ [\text{em-10912}]$

References

- [1] COUCH, J.N. (1938). The genus Septobasidium. Chapel Hill. 480 p.
- TORREND, C. (1913). 'Les Basidiomycètes des environs de Lisbonne et de la région de S.Fiel (Beira Baixa) [suite, n. 462-677]'. Broteria, 11 (2): 73–98





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