

Thermutis Fr.

After Giavarini, 1992

Rev. 5/94

Thallus filamentous, blackish; filaments \pm erect, cushion-forming, without any special attachments to the substratum, each comprising a filament of the photobiont with the fungal hyphae longitudinally oriented, loosely interwoven, without special ordering, in the gelatinous sheath of the photobiont, penetrating the photobiont cells by short, capitate haustoria. Photobiont Scytonema.

Apothecia lateral, reddish brown, biatorine; disks often depressed. Thalline exciple absent. True exciple distinct, of loosely interwoven hyphae. Hypothecium pale. Hymenium I+ blue. Paraphyses simple, septate; apices swollen. Asci cylindrical, thin-walled; apical dome I+ blue. Spores 8(-12), simple, ellipsoid, colorless.

Pycnidia lateral, reddish brown; conidogenous cells narrow, acrogenous; conidia simple, globose, colorless. No substances. On rocks.

Distinguished from Spilonema by the distinct true exciple, different photobiont, and lack of any greenish, N+ red pigment in the apothecia and pycnidia.

Easily mistaken for non-lichenized Scytonema cushions, but readily identified when sterile by the thin hyphae with capitate haustori ramifying through the photobiont's sheath. The identity of the photobiont (Scytonema) and the narrowness of the filaments distinguish it from Spilonema and small specimens of Ephebe and Polychidium. Cystocoleus and Racodium have Trentepohlia, a chlorophyceous alga which completely lacks a gelatinous sheath.

T. velutina (Ach.) Th. Fr.

Thallus forming brown-black to black, cottony tufts or cushions to 1 cm diam.; filaments ca. 2 mm long, (15-)18-28 μ m thick, simple or sparingly branched, the frequently one-sided branches to 12 μ m thick.. Apothecia 0.2-0.5(-0.8) mm diam., lateral, sessile; disc flat to slightly concave; true exciple swollen, entire, 50-70 μ m wide, brown at edge, colorless within; hymenium 100-150 μ m tall, colorless, or brownish in upper part; hypothecium 80-130 μ m tall, colorless. Asci 60-100 x 5.5-7 μ m. Ascospores ellipsoid, 9-12(-15) x 5-7 μ m. Conidia 1-1.5 μ m diam. On acidic and basic rocks in moist gullies and ravine, also in the spray zone of waterfalls. Minnesota. Reports from Washington by Howard (1950) are based on misidentifications.

Literature

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