

Tylothallia P. James & Kiliass

After Fox & James, 1992

Rev. 5/94

Thallus thick, areolate, the areoles convex and warty, often mosaicforming, white to greengray, purplegray or dull greenwhite; prothallus black, often well developed. Photobiont chlorococcoid, cells ca. 612 um diam. Apothecia to 1.5 mm diam., at first flat, becoming convex and at times tuberculate, irregularly thickened with a warty surface, dark blue gray to black; disk sometimes thinly pruinose, especially when young. True exciple distinct at first but becoming excluded, of richly branched coherent hyphae 11.7 um wide, each surrounded by a gel coat that swells to 10 um wide in K, K+ yellowish to orange, P+ light yellow. Paraphyses 1.52 um wide, numerous, slender, often branched and anastomosed, the apices mostly slightly irregularly swollen, not regularly capitate, I+ blue. Asci Biatoratype. Spores 8, oblong, (0)1septate, without a distinct perispore, colorless. Pycnidia immersed, often with a residual thalline rim; conidiogenous cells ± cylindrical, enteroblastic, acrogenous; conidia ellipsoid or shortly oblong, simple, colorless. Atranorin, 2-Omethylperlatolic, norstictic, and fumarprotocetraric. On siliceous rocks.

Similar to Cliostomum, but with more coherent, more branched and anastomosed paraphyses, and with immersed pycnidia with walls colorless except for a greenish (not purplish) pigment around the ostioles.

This is a segregate from Catillaria.

T. biformigera (Leighton) P. James & Kiliass in Kiliass

Thallus thin to thick, irregularly warted, conspicuously rimosecracked, ± dull greengray. Apothecia to 1.5 mm diam., rounded or irregular to lobate, ± convex, blueblack to black, occasionally thinly grayish pruinose, sometimes with thickish, often flexuose proper margin, scattered or sometimes ± clustered; true exciple colorless to pale redbrown within, K± intensified or orangebrown, the outer edge pale to dark brown, K± olivaceous black, N+ red, P+ yelloworange; epithecium blackbluegreen or in part dark olive to fuscousbrown, minutely granular, K± greenish or blackish, intensifying, N+ red, this and outer edge of exciple ± with scattered, minute, interspersed crystals; hymenium 5070 um

tall, usually tinged bluish; hypothecium massive, downwardly extended, pale. Spores $10.5 \times (2.5)35$ μm , elongate ellipsoid with abruptly rounded ends. Cortex and medulla P to P+ orange, K to K+ yellow to orange, UV or faint bluish white (atranorin, 2'-O-methylperlatolic acid, 2 unidentified depsides, norstictic and fumarprotocetraric acids). On shaded, dry sides of \pm vertical, siliceous, coastal rocks and walls, more rarely on dry, sheltered vertical rock faces or underhangs in inland areas. A very variable species often forming extensive mosaics. Material from Washington identified only tentatively as this species.

Literature

Fox, B. W. and P. W. James. 1992. Tylothallia. In: Purvis, et al., Lichen Flora of Great Britain and Ireland.

Kilius, . Catillaria.