

Lichens of Great Britain & Ireland edn 3

Draft genus account version 1.1, February 2018

Prepared by Paul Cannon, based on the LGBI2 account by Lambley & Purvis (2009)

THAMNOLIA Ach. ex Schaer. (1850)

Thallus prostrate or decumbent, ± cylindrical and worm-like, the apices usually attenuated, often becoming vagrant due to breakdown of the basal parts, not or sparingly branched, the branches similar in form to the main axis. **Cortex** composed of longitudinally orientated hyphae. **Medulla** thin, of longitudinally orientated hyphae, the interior hollow. **Photobiont** trebouxoid. **Ascomata** unknown. **Conidiomata** formed as small pustules on the thallus surface, ± hemispherical, ostiolate. Conidiophores elongate, forming chains of intercalary conidiogenous cells. Conidia bacilliform, hyaline, aseptate, thin-walled. **Chemistry**: with β-orcinol depsidones (baeomycesic, squamatic or thamnolic acids). **Ecology**: in exposed montane heaths, on stony soil. **Distribution**: three species in both hemispheres; absent from Africa.

An unmistakable genus with species that reproduce clonally via fragmentation of the thallus. It occupies an isolated phylogenetic position within the Icmadophilaceae.

Literature:

Culberson, W.L. (1963). The lichen genus *Thamnolia*. *Brittonia* **15**: 140-144.

Ihlen, P.G. (1995). The lichenicolous fungi on *Thamnolia vermicularis* in Norway. *Graphis Scripta* **7**: 17-24.

Lord, J.M., Knight, A., Bannister, J.M., Ludwig, L.R., Malcolm, W.M. & Orlovich, D.A. (2013). Rediscovery of pycnidia in *Thamnolia vermicularis*: implications for chemotype occurrence and distribution. *Lichenologist* **45**: 397-411.

Onuț-Brännström, I., Johannesson, H. & Tibell, L. (2018). *Thamnolia tundrae* sp. nov., a cryptic species and putative glacial relict. *Lichenologist* **50**: 59-75.

Onuț-Brännström, I., Tibell, L. & Johannesson, H. (2017). A worldwide phylogeography of the whiteworm lichens *Thamnolia* reveals three lineages with distinct habitats and evolutionary histories. *Ecology and Evolution* **7**: 3602–3615.

Zhurbenko, M.P. (2012). Lichenicolous fungi growing on *Thamnolia*, mainly from the Holarctic, with a worldwide key to the known species. *Lichenologist* **44**: 147-177.

Thamnolia subuliformis (Ehrh.) W.L. Culb. (1963)

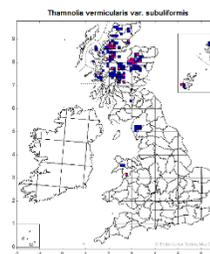
LC

T. vermicularis var. *subuliformis* (Ehrh.) Schaer. (1850)

Thallus to 5 cm in length, 1-2 mm wide, decumbent or straggling, rarely ± erect, rarely with a few short lateral branches, occasionally ± densely tufted, the apices usually attenuated; smooth, chalk-white, cylindrical, hollow and thin-walled. Soredia and isidia absent. Conidiomata formed as small pustules on the thallus surface, 200–350 μm diam. and 150–200 μm tall, ± hemispherical, the surface irregular, ostiolate, with pinkish exudates formed by a mucilaginous mass of conidia. Conidiophores elongate, forming chains of intercalary conidiogenous cells with peg-like processes near the upper cell septum. Conidia 3-5 x 1-2 μm, bacilliform, tapering slightly at one end, hyaline, aseptate, thin-walled. Thallus C–, K+ pale yellow, KC–, Pd+ yellow, UV+ white (baeomycesic and squamatic acids). **BLS 1382**.

On exposed montane heaths, often amongst *Rhacomitrium lanuginosum* and *Salix herbacea* above 850 m, rarely at sea-level on heaths developed on old shingle ridges and dunes in N. Scotland; locally frequent. N.W. England (Lake District), N. Wales, Scotland (Highlands). Boreal and montane habitats in Europe, North America, northern Asia and the Himalayas, also austral-montane areas of S. America, southern Australia and New Zealand.

Thamnolia vermicularis is morphologically indistinguishable but differs in having thamnolic acid alone (C–, K+ bright yellow, KC–, Pd+ orange to red, UV–); it appears to be restricted to central Europe but could possibly



occur in Britain, as could *T. tundrae* in the extreme north. The chalk-white, worm-like, usually unbranched, hollow and prostrate thalli are unlikely to be confused with any other species. Perhaps the most similar in our region is *Siphula ceratites*, which has a shorter, erect, compact and solid thallus.

Host to the gall-forming *Thamnogalla crombiei* (Mudd) D. Hawksw. (1980), and a substantial number of other lichenicolous species.

© British Lichen Society. All rights reserved.