

Fulgensia Massal. & DeNot. in Massal.
(LECANORALES: TELOSCHISTACEAE)

After Poelt (1969), Thomson (1979), and Gilbert (1992)

Rev. 5/94

Thallus crustose/squamulose, heteromerous, dorsiventral, granular to areolate-squamulose, dispersed to placodioid (lobed at the margins), rosette-forming to spreading, appressed; upper surface orange-yellow, matt or scabrid, often pruinose, often with schizidia. Medulla white.

Apothecia sessile; thalloid exciple developed; disk round, orange to orange-brown or red-brown, K⁺ purple; hypothecium pale; paraphyses unbranched, thickened at the tips; asci Teloschistes-type, unitunicate, I⁺ blue; tholus I⁺ blue; spores 8, simple or occasionally spuriously 1-septate, never polarilocular, hyaline, ellipsoid to pyriform.

Pycnidia rare, immersed, multilocular; conidogenous cells lining locules within the pycnidial cavity, \pm subglobose to short-ampulliform, enteroblastic, acrogenous (fulcrum endobasidal according to Rogers); pycnosporos bacilliform, simple, colorless. Thallus K⁺ purple, with anthraquinones (parietin, emodin, fragilin, teloschistin, chloroemodin, fallacinal, parietinic acid). Photobiont Trebouxia. On dry calcareous substrates (usually soil or mosses, or sometimes rock), in arid or semi-arid areas, \pm temperate (warm to cool).

1. Apothecia present. 2

1. Apothecia absent. Thallus not definitely effigurate, but warty-squamulose 4

2. Mature spores definitely 2-celled, \pm oval, broadly rounded and \pm constricted at the septum, 11-17 x 5.5-8 μ m (11-15 x 5.5-8 μ m in f. desertorum, 12.5-17 x 6.5-8 μ m in f. macrospora Llimona). Thallus permeating the substrate with thick rhizine-hyphae-tomentum, not definitely effigurate, but warty-squamulose, light to orange-yellow. Marginal lobes ca. 1-2 mm long and often \pm equally wide. On dryer soil over gypsum or on open soils of more arid regions. F. desertorum

2. Mature spores 1-celled. 3

3. Marginal lobes clearly differentiated, center of thallus persisting with \pm clearly developed schizidia; spores ellipsoid to pear-shaped, 9-12 x 3.5-5 μ m. Thallus almost foliose, yellowish white to orange, orbicular, to 3(-5) cm diam., monophyllous, deeply divided, the marginal lobes clearly differentiated and flattened, usually over 1 mm wide, contiguous, imbricate or sublobulate, sometimes (according to Galloway) dispersed; margins neat, clearly differentiated; thallus center usually coherent, becoming warted-bullate or areolate, not disintegrated into squamules or divided into lobes or schizidia (schizidia often present according to Galloway); upper surface matt, often strongly white-pruinose; pruina "coarse" but "floury". Apothecia common, 1-1.5 mm diam., central, sessile; disc deep orange, convex; thalline margin thin, becoming excluded; spores rather variable in shape, \pm ellipsoid (or sometimes short and tapered, clavate to pyriform), (7-)9-12(-16) x (2.5-)4-5(-6) μ m. Thallus UV \pm dull pale orange, containing physcion (also in apothecia?), a smaller amount of fallacinal, and traces of fallacinal;

"caloplocin" reported by Galloway. On well-consolidated, well-lit, freely drained, basic substrates (soil and rock), in sheltered but open sites. F. fulgens

3. Marginal lobing lacking or very poorly developed; spores broadly ellipsoid, 8-15 x 3.5-7 um. Thallus warty-squamulose, golden yellow, orange yellow to orange-brown, roughened, sometimes sparingly pruinose, the center usually quickly disintegrating into single areole groups, \pm discontinuous, not coherent, often with clearly developed schizidia (small, \pm convex, squamulose lobules) \pm loose on the substratum or \pm overlapping and forming congested clusters, usually scattered over a white hypothallus or exposed medulla; marginal lobes not or only weakly differentiated, scarcely longer than broad. Apothecia scattered or crowded, 1-2 mm wide; discs red-brown. Spores narrowly to usually broadly ellipsoid, 9-13(-15) x 4-7 um. Thallus UV \pm salmon-orange, containing fragilin and caloplocin; physcion only in apothecia. On rock, soil and mosses, on \pm calcareous substrates. Alaska. F. bracteata

4. Marginal lobes 1-2 mm long and often \pm equally wide; schizidia absent.
..... F. desertorum

4. Marginal lobes not or only weakly differentiated; schizidia often present.
..... (F. bracteata)

Literature

Galloway, D. 1985. Flora of New Zealand Lichens.

Gilbert, 1992. Fulgensia. In: Purvis, et al., Lichen Flora of Great Britain and Ireland.

Poelt, J. 1969. Bestimmungsschlüssel europäischer Flechten.

Rogers, 19 . Genera of Australian Lichens.

Thomson, J. W. 1979. Lichens of the Alaskan Arctic Slope.