

Candelaria Massal.

(LECANORALES: CANDELARIACEAE)

After Fink (1935) and Hale (1979)

Rev. 5/94

Thallus minutely fruticose, squamulose or \pm foliose, often much lacerate, colored greenyellow to chromeyellow, K with pulvinic acid derivatives; lobes very narrow, strapshaped to somewhat rounded or linear, contiguous to crowded; margins entire to dissected; soredia present (often covering large areas of the thallus, with the lobes visible only at the margins) or absent; attached by rhizoids; upper and lower cortices well developed, paraplectenchymatous; lower cortex rhizinate. Medulla white.

Apothecia sessile, laminal, round, small (to 1.5 mm diam.); margin thalline, persistent; true exciple rudimentary; disk depressed (concave), yellow or yellowgreen; hypothecium hyaline; hymenium colorless, I+ blue; epihymenium yellowbrown, granular; paraphyses simple or little branched, nodular, apices swollen; asci clavate, Candelariatype, unitunicate, thick walled, I+ blue; tholus I+ blue only in the lower part and penetrated by a broad apical cushion; spores 1632, simple, often with two large oil drops, or rarely thinly 1septate, hyaline.

Pycnidia laminal, immersed within raised warts; wall colorless; conidiogenous cells enteroblastic, elongateampulliform, arising in groups on branched conidiophore cells; conidia ellipsoid, simple, colorless. Calycin and pulvinic dilactone. Photobiont trebouxoid. On nutrientrich bark, rarely rock.

Similar to Candelariella but foliose. This genus is usually easily recognized by its bright greenish lemon yellow, K thallus growing on bark and wood, with lobes very tiny and closely adnate (making the thallus appearing almost crustose without a lens, but individual lobes removable intact and corticate below). Forms of C. concolor can sometimes be confused with other genera, as described under that species.

1. Thallus without soredia. Apothecia numerous, 0.21 mm diam., round, sessile, slightly constricted at base; disc flat, yellow; thalline margin thin, prominent, entire to crenulate, bearing minute rhizinelike fibrils below; spores nonseptate to 1septate, 912 x 46 μ m. Thallus 12 cm broad, round to irregular and stellate, \pm irregularly lobed; lobes somewhat imbricated, short and broad to \pm elongated, finely branched, 0.30.5 mm wide, the

margins repeatedly and deeply incised; upper surface yellow to rarely ashy; lower surface white, bearing sparse (to numerous) short, white rhizines. Widespread on deciduous trees in open woods or along roadsides, eastern U.S. (New England to South Carolina, west to Ohio and Texas) and southeast Canada, moderately common, rarely on rocks. C. fibrosa

1. Thallus with soredia scattered over upper surface. Apothecia rare, 0.5-1.5 mm across. Thallus forming discrete, suborbicular cushions (0.2-1.0 cm broad), irregularly spreading and often fusing into larger colonies, or sometimes scattered; lobes very finely branched, ca. 1 mm long, 0.1-0.3(0.5) mm wide, sometimes almost hairlike; surface flat or \pm wavy, often somewhat raised and fanlike, the margins distinctly crenulate, \pm overlapping, entire, or becoming \pm isidiate granular or coarsely sorediate, bright yellowish green to chrome yellow above, matt; lower surface whitish, with scattered simple rhizines. Common throughout most of the U.S. (except Florida) and Nevada) and southern Canada, on ash, elm and sugar maple in open woods in the East; on various broadleaved plants in the West, often on nutrient-enriched bark (e.g., along tracks where rain flows, and in dusty areas) along roads in rural areas, sometimes on sagebrush, wood, or rarely rock. 2

2. Thallus distinctly and richly lobed. C. concolor var. concolor

2. Thallus reduced to \pm scattered, granulose squamules or passing into a \pm continuous sorediate crust. Must be distinguished from species of Candelariella, which completely lack lobes.

Chrysothrix candelaris is also sorediate and bright greenish yellow, but is thinner and very finely powdery throughout. C. concolor var. effusa (Tuck.) G. K. Merrill & Burnh.

Literature

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