

Canoparmelia Elix & Hale
(LECANORALES: PARMELIACEAE)

After Hale

Rev. 5/94

Thallus foliose; lobes subrotund at the apices, \pm medium in width, (0.5-)3.0-5.0(-8.0) mm broad, eciliate. Upper surface uniformly gray (atranorin) or rarely yellow-green (usnic acid), with a perforate polysaccharide covering (pored epicortex). Soredia, pustules, or isidia often present. Lower surface black, with a narrow, paler, erhizinate zone at the margins; rhizines moderate to dense, simple. Cilia absent. Medulla white. Pseudocyphellae absent. Upper cortex palisade plectenchymatous. Cell walls containing isolichenan.

Apothecia laminal or submarginal; disc entire. Spores 8, ellipsoid, simple, 6-8 x 10-14 μ m.

Pycnidia laminal or rarely marginal, immersed. Pycnospores bifusiform or more rarely cylindrical or weakly fusiform, 7-10 μ m long. Cortex with atranorin and chloratranorin, \pm usnic acid. Medulla with orcinol depsides, β -orcinol depsidones, aliphatic acids, anthraquinones, amino acid derivatives. On bark or rock, tropical and subtropical to temperate forest and woodland. Type species: C. texana.

A segregate from Parmelia s. lato, characterized by the relatively narrow, eciliate lobes, pored epicortex, presence of isolichenan, and simple rhizines. Superficially similar Paraparmelia is obligately saxicolous, contains Xanthoparmelia-type lichenan, and has smaller spores.

1. Isidiate. 2

1. Sorediate. 6

2. On rocks. Medulla P- (perlatolic acid); lobe tips with reticulate white maculae.....
(see C. caroliniana)

2. On bark.3

3. Lower surface uniformly pale brown; isidia moderate to dense, 1 mm high; lobe tips unmarked; medulla K+ yellow/red, P+ yellow (salazinic). Thallus adnate, 6-10 cm broad; upper surface mineral gray, turning buff in herbarium, continuous, cracked only on older lobes; lower surface moderately rhizinate. Apothecia lacking. On oak and palm trees, Florida. C. salaciniifera (Hale) Elix & Hale

3. Lower surface black toward center and black or brown at margin. Isidia not inflated or pustulate, to 1 mm high.4

4. Upper surface finely reticulately cracked and strongly white-reticulate towards tips; medulla K-, P-, KC+ faint purplish (perlatolic acid). Isidia normal, thin and cylindrical, not pustulate. Thallus adnate, 5-10 cm broad; upper surface greenish mineral gray, moderately isidiate; lower surface naked in a narrow marginal zone. Lobes 2-4 mm wide, irregularly broadened, apically subrotund. Apothecia rare. Common in open woods, often on conifers, more rarely on rocks. Widespread in \pm southeast U.S., S to

Florida.C. caroliniana (Nyl.) Elix & Hale

4. Upper surface continuous, mostly not reticulate (except at the tips in C. martinicana); medulla K-, C-, P+ orange-red (protocetraric acid). 5

5. Isidia inflated, cylindrical to irregular, coarse, fragile, crumbling, somewhat lobulate, sometimes apically granular to pustulate; lobe tips white-reticulate. Cilia absent; rhizines black and simple. Medulla K-, P+ red, C+ rose, with protocetraric and gyrophoric acids. On trees. Florida. C. martinicana (Nyl.) Elix & Hale

5. Isidia normal, globose to cylindrical; lobe tips not white-reticulate. Thallus adnate, 3-6 cm broad; lobes irregularly broadened, 2-5 cm wide; upper surface whitish mineral gray (often turning buff in herbarium). Apothecia lacking. On oaks and palm trees in open woods, Florida and immediately adjacent areas. C. amazonica (Nyl.) Elix & Hale

6. Medulla P+ orange-red.7

6. Medulla P-.8

7. Upper surface broadly reticulately white-ridged and foveolate (without lens); lobes subirregular, 2-5 mm wide. Thallus adnate, 4-7 cm broad; upper surface light mineral gray; lower surface black at center, brown at margin, densely rhizinate. Sorediate along the ridges. Apothecia lacking. Medulla K+ yellow, C-, P+ yellow/orange (stictic acid). Widespread but apparently not common, on hardwood trees, central Appalachian and Ozark regions C. crozalsiana

7. Upper surface smooth and plane; soredia farinose, produced in discrete orbicular soralia. Lobes ca. 1 mm wide. Medulla K-, P+ orange/red (protocetraric acid). On rock. Northern Alabama; Tennessee. (Paraparmelia alabamensis)

8. Soralia strongly elevated and capitate along the margins of upturned lobules. Medulla KC+ purple (cryptochlorophaeic acid). Thallus closely adnate, 5-10 cm broad; upper surface greenish mineral gray, often white-reticulate at lobe tips; lower surface black and rhizinate but turning brown and naked in a narrow marginal zone. Soralia conspicuous. Apothecia very rare. On deciduous trees along roadsides and in moist woods from Texas to Florida in the coastal plain. C. cryptochlorophaea (Hale) Elix & Hale

8. Soralia not capitate, entirely laminal, pustular. Medulla KC+ pinkish or faint purple (divaricatic acid). Thallus adnate, 6-12 cm broad; upper surface whitish mineral gray, becoming faintly white-reticulate at tips; lower surface sparsely rhizinate with a narrow bare zone along the margins. Apothecia very rare. Rather rare on conifers and hardwoods in dry open woods or along roads. Texas to FloridaC. texana (Tuck.) Elix & Hale

Elix, J. A. 1993. Genera of Parmeliaceae.

Elix, J. A., J. Johnston and D. Verdon. 1986. Canoparmelia, Paraparmelia and Relicinopsis, three new genera in the Parmeliaceae (lichenized Ascomycotina). Mycotaxon 27: 271-282.

Hale, M. 19 . Pseudoparmelia.

