Cresponea Egea & Torrente
(Arthoniales)

After Egea & Torrente

Rev. 5/94

Thallus crustose, continuous, cracked or seldom areolate, with smooth, rarely elprose surface, effuse, whitish, grayish or greenish, thin, usually poorly developed, endo- to episubstratal; hypothalline line sometimes forming an irregular black or dark brown border. In section appearing ± paraplectenchymatous, ecorticate and without a differentiated medulla. Isidia and soreida absent. Photobiont trentepohlioid.

Ascomata apothecioid, sessile, with constricted base, 0.2-2.5 mm diam., roundish, scattered or rarely 2-4 together and then slightly contorted through mutual pressure; central column of sterile tissue occcasionally present; margin lecideine, prominent, raised above disk, smooth or more often denticulate or crenulate, persistent, glossy black, epruinose; disc at first usually concave but soon plane to slightly convex, black, covered by ± dense greenish, orangish or reddish pruina, often only present in younger apothecia. Excipulum well developed, dark brown to carbonaceous, K+ dark gren or olive brown, composed of conglutinate, thick-walled hyphae, closed at bottom and extending down towards medulla or substrate; hyphal wallls strongly gelatinized; inidividual hyphae not easily discerned, sometimes distinguishable in outer part and then anticlinally arranged. Hymenium colorless, I+ blue/reddish or reddish, K/I+ blue, with hymenial strand of excipular tissue intruding between the paraphysoids (ascostromata multiascal, pluricarpocentral, sensu Tehler, 1990); subhymenium pale brown or rarely colorless. Paraphjysoids hyaline, septate, simple or sparsely branched, with few or no anastomoses, to 2.5 um wide; apical cell clavate, with distinct pale or dark brown cap which is formed in the outer or seldom in the inner part of the cell wall, forming a granulose, dark brown pseudoepithecium, K+ yellow or rarely purple. Under polarized light the granules were yellowish to reddish. Asci bitunicate with fissitunicate dehiscensce, clavate to cylindric-clavate, slightly stiped, 8-spored; exoascus thin and refringent; endoascus of varying thickiness depending on development state, 2-layered, both layers hemiamyloid (K/I+ blue), but in the internal endoascus thee is a thick band strongly amyloid, with an easily distinguishable ring structure and a small ocular chamber, without apical nasse (abietina-type). Spores 11-85 x 3-9 um, 3-19-septate transversely, oblong-fusiform, fusiform to acicular-fusiform, straight or somewhat curved. thick walled and ± widened at septa, with smoooth surface, without distingushable gelatinous sheath, hyaline, rarely brownish when old.

Pycnidia solitary, punctiform, immersed or subimersed in thallus, epruinose, globose to subglobose, walls dark brown or carbonaceous above, colorless to pale brown in inner part. Conidiophores type I or II of Vobis; conidiogenous cells in terminal position. Microconidia oblong, straight and short, 3-5 x 1-1.5 um. Macroconidia not found.

Thallus and medulla K-, C-, KC-, P-, no substances except in C. leprieuroides, which has lecanoric and gyrophoric and is C+ reddish.

Tropical to temperate. On bark or wood. Type species: C. premnea

Differs from Lecanactis (L. abietina group) in having epruinose apothecial margin,

excipulum hyphae without crystals soluble in K, pseudoepithecial granules yellowish to reddish, K+ yellow or purple; paraphysoids scarcely anastomosed; internal "d" layer 2-sublayered, with the internal layer vesiculous (as seen in electron microscope); spores thick-walled, ± widened at septa; perispore thick; endospore differentiated; pycnidia ± immersed, ± globose; macroconidia absent.

Need to see Egea & Torrente again to get full descriptions of C. flava and C. proximata and fit them into the key.

1. Spores (34-)38-65 x 5-7 um. Thallus whitish, grayish or grenish, continuous, cracked, thin, hypothalline line inapparent. Ascomata scattered or crowded, roundish or slgihtly contorted through mutual presssure, sessile, constricted at base, 0.5-2.5 mm diam., occasionally with cetnral sterile columnn, with prominent, smooth or often crenulate margin; disc plane or slightly convex, yellowish to redish brown pruinose when young. Hymenium 100-160 um, I+ blue or reddish. Subhymenium hyaline to pael brown, 30-65 um, I+ blue. Parphysooids to 2 um wide; apcial cells thickened tp 3-5 um with distinct red to dark brown cap in outer part of cell wall. Asci 82-95 xx 16-27 um. Spores fusiform to narrowly fusiform, (8-)9-14-septate, cell wall not or little thickened at septa. Conidia 3-5 x 1 um. On bark. Washington state; Mexico. ..... C. leprieurii (Mont.) Egea & Torrente

1. Spores under 30 um long. 2

> **2. Spores (13-)18-25 x 4.5-6(-7) um; exciple thick,** peristent, prominent, ± crenate. Spores cylindrical, (4-)5-septate, often curved, with pointed ends; Thallus thin, effuse and grayish, or evanescent. Apothecia 0.4-1.5(-2) mm diam., disciform, black, sessile; disc naked or thinly gray-green pruinose, flat. Pycnidia occasional, mostly arranged in lines or groups, black, semi-immersed to sessile, 60-100 um diam.; conidia bacilliform, 3.5-4.6 x 0.8 um. Thallus and apothecial pruina P-, K-, C-, UV- (no substances). On dry, rough, usually well-lit bark of old oaks or other trees, more rarely on hard, acid rocks in dry underhangs. Fink reported the species from South Carolina to Florida, west to Ohio and Minnesota, and recurring in California. The variety saxicola is similar to typical variety but thallus poorly developed and granulose, ascomata bigger, to 1.1 mm diam., asci wider, 13-15 um, and spores wider, 5-6 um. Alabama and Missouri. [Egea & Torrente do not cite any specimens or show on their map any of the typical variety from N. Am.]..... C. premnea (Ach.) Egea & Torrente (syn. Lecanactis premnea) v. saxicola (Leight.) Egea & Torrente
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> **2. Spores 11-15(-17) x 3-5 um; exciple thin.** Thallus small, thin, uniform, smooth to granulose, yellowish-greenish to yellowish ashen, K+ yellow, C-, definite and limited by a black hypothalline line, or this obsolete and thallus diffuse. Apothecia small to medium size, circular, sessile, black; disk greenish pruinose or finally naked; proper margin erect, rather thin, mostly entire, becoming somewhat anuglose or wavy; epithecium granulose, green-blackish; hypothecium broad, black, continuous with the broad black exciple; paraphyses branching or simple, free, the tips thickened and dark green; hymenium hyaline, I+ wine-red; spores (2-)3(-4)-septate, finger-shaped or broadly fusiform. On trees (e.g., alder) and old wood, near the ocean, Great Lakes-northern Applachians-New England (New Hampshire to S. Carolina), Manitoba, and California (and Washington?). .....C. chloroconia (Tuck.) Egea & Torrente (syn. Lecanactis

chloroconia)

ADD:

1. Ascospores 3-4(-5)-septate, 15-22(-24) x (4-)4.5-5.5 um; margin black, raised, cracked; disk chartreuse pruinose.. Florida. ..... C. flava (Vainio) Egea & Torrente
1. Ascospores 5-7(-8) x 5-7(-7.5) um; margin black, thick, slightly raised, ± smooth; disk chartreuse pruinose. Florida. ..... C. proximata (Nyl.) Egea & Torrente

Literature

Egea, J. M. and P. Torrente. 1993. Cresponea, a new genus of lichenized fungi in the order Arthoniales (Ascomycotina). Mycotaxon 48: 301-331.

Harris, R. C. 1995. More Florida Lichens.