

Psoroma Ach. in Michaux
(PANNARIACEAE)

After Henssen & Renner, 1981, Jorgensen, and others

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Thallus smallsquamulose to foliose, \pm irregular, dorsiventral, heteromerous, orbicular to spreading, loosely to closely attached; hypothallus absent to indistinct, or (in some non N. American species) conspicuous, black, visible beyond margins of lobes or squamulose; lobes adjacent, flabellate to cuneate, often imbricate or \pm crowded or areolatesquamulose; margins entire to variously incised, notched, phyllidiate or lobulate, sometimes \pm ascending, sometimes \pm hirsute, tomentose or scabrid; upper surface convex to plane, smooth to wrinkledplicate or \pm bullate, with or without soredia, isidia or phyllidia, shining or matt, scabrid or tomentose; medulla white; upper cortex paraplectenchymatous, of anticlinal hyphae; lower cortex thin, of interwoven periclinal hyphae; attached to substrate by a few rhizoids; rhizoids simple or branched, pale to black, often dense, entangled, byssoid. Cephalodia on upper or lower surface, or on hyphae of prothallus, superficial or immersed, sometimes sorediate, simple, \pm globose to spreading, placodioidplicate.

Apothecia laminal or marginal, adnate to sessile, \pm cupshaped; margin thalloid, raised, persistent, crenulate, concolorous with thallus, sometimes hirsute; disc redbrown to pale yellowbrown or orangebrown, concave then mostly plane to subconvex, smooth, continuous or gyrosecontorted or etched or with plugs or concentric rings of sterile, thalline tissue, sometimes whitepruinose; hypothecium hyaline; paraphyses simple, or branched near apices; apices not thickened or capitate; asci clavate, longellipsoid or cylindrical, unitunicate; tholus + blue; apex with K/I+ blue central tube in a palerstaining tholus; well developed "manubrium" often present. Spores 8, ellipsoid to spherical, \pm apiculate, simple, hyaline, often with 12 large oil droplets, thin walled; epispore often thickened, wartedridged.

Pycnidia immersed, pale brown; fulcrum endobasidial; pycnospores simple, colorless, short, cylindrical, bacilliform, or constricted in the middle. Pannarin, zeorin, or no substances. Photobiont ?Myrmecia; Nostoc in external cephalodia. On rock, soil and bark, usually over mosses. In humid areas, temperate to arctic.

Also see key to Pannaria and Parmeliella

1. Thallus and apothecia cinnamon to yellowbrown. With porphyritic acid methyl ester, pannaric acid, and often an unknown substance. Apothecia small, flat, the margin thin, evenly crenate. Cephalodia dark purplish brown, clustered. Upper cortex of periclinal hyphae with isodiametric cells. Alberta and Colorado. P. tenue v. borealis

1. Thallus ochreyellowish to yellow or brownish or greenish gray when dry, bright green when wet; apothecial discs brownish to dark brown. Without lichen substances. Apothecia frequent, to 13(6) mm diam., flat, the margin thin, usually strongly crenategranular to subsquamulose, concolorous with thallus, the lower part or underside \pm densely covered by short, pale hairs. Thallus spreading irregularly, of coarsely granular squamules to 0.5(1) mm long and broad, thick, smooth, matt; upper cortex paraplectenchymatous; lower cortex of interwoven hyphae. Apothecia sessile, to slightly immersed among squamules; disk concave to flat, matt. Subhymenium yellowish brown; hymenium 100-200 μ m, the upper part yellowbrown; paraphyses 12 μ m thick (Thomson) or to 4.5 μ m (Purvis), submoniliform, apices shortcelled; asci 70-90 x 11-15 μ m; spores 8/ascus, ellipsoid to longellipsoid, spindle-shaped or ovoid (with an apiculus at one or both ends), 19-28 x 8-12 μ m, including epispore 22-34 x 9-12 μ m; epispore distinctly wartedridged. Cephalodia frequent, sometimes few and inconspicuous, similar to thallus squamules, or smooth, rounded, pale reddish brown, brown or bluish brown, scattered among the squamules or on the outer surface of the margin. Usually on earth containing humus or over mosses in moist habitats, sometimes at bases of old trees or over acid rocks, characteristic of leached substrata. Widespread, arctic-alpine to boreal, Alaska and Canada, south to New England and through the Rocky Mountains to New Mexico. Somewhat similar to Pannaria pezizoides, which differs in having a darker, bluegray to reddish brown thallus (blackish when wet), containing Nostoc, lacking cephalodia, and lacking dense hairs on apothecial margin. I am tentatively including here some material from Washington that has a rather bluish gray thallus, small apothecia, pale discs and not very lobulate margins; it may be a shade form, or it may be a distinct taxon. P. hypnorum

Literature

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