

PANNOPARMELIA

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Pannoparmelia (Müll.Arg.) Darb., *Wiss. Ergebn. Schwed. Südpol.-Exp. 1901–03* 4(11): 11 (1912); from the Latin *pannosus* (texture of felt), in reference to the prominent spongy hypothallus.

Anzia sect. *Pannoparmelia* Müll.Arg., *Flora* 72: 507 (1889).

Type: *P. angustata* (Pers.) Zahlbr.

Thallus foliose, dorsiventral, lobate, suborbicular, loosely adnate, to 5–10 (–12) cm wide. Lobes complex-imbricate in thallus centre, ±dichotomously branched at apices, lacinate, narrow, rather small, eciliate. Upper surface yellow, yellow-green to greyish yellow (usnic acid), flat to ±convex, without pseudocyphellae and maculae, with or without isidia or soredia; upper cortex of palisade plectenchyma, with a pored epicortex. Cell walls containing *Cetraria*-type lichenan. Medulla without central chondroid strand, white. Lower surface consisting of loose patches of spongy hypothallus between which a shiny to matt lower cortex is discernible, ±rhizinate; hypothallus prominent, moniliform, consisting of dichotomously branched hyphae, pale yellow-brown to red-brown or brown-black; rhizines stout, simple or sparingly branched, dark brown to black, anchored to substratum by an apical squarrose tuft. Ascomata apothecial, common to occasional or absent, laminal, sessile to pedicellate; disc imperforate, sometimes ±lacerate (when overmature hymenial layers often split away from lower supporting layers). Asci clavate. Ascospores simple, globose to ovoid or fabiform, 8 per ascus, with thickened walls, 5–15 µm long. Conidiomata pycnidial, scattered to abundant, punctiform, laminal, often ±marginal, immersed, black. Conidia cylindrical or bacilliform to slightly fusiform, 5–6.5 µm long.

A genus found mainly in the Southern Hemisphere, in Australia, New Zealand, southern Argentina and Chile. In the Northern Hemisphere it has been recorded from China and Borneo. There are two species in the genus and they have a worldwide distribution. Both occur in Australia.

V.Räsänen, *Lichenes novi I. Ann. Bot. Soc. Zool.-Bot. Fenn. 'Vanamo'* 20: 1–34 (1944); S.Kurokawa & Y.Jinzeji, *Chemistry and nomenclature of Japanese Anzia*, *Bull. Natl Sci. Mus. Tokyo* 8: 369–374 (1965); G.C.Bratt, A.J.Blackman & J.A.Cashin, *The genus Anzia in Tasmania*, *Lichenologist* 8: 69–77 (1976); D.J.Galloway, *Anzia and Pannoparmelia (Lichenes) in New Zealand*, *New Zealand J. Bot.* 16: 261–270 (1978); A.Henssen & A.Dobelmann, *Development of the spongiostratum in Anzia and Pannoparmelia*, *Biblioth. Lichenol.* 25: 103–108 (1987); I.Yoshimura, *Taxonomy and speciation in Anzia and Pannoparmelia*, *Biblioth. Lichenol.* 25: 185–195 (1987); S.Calvelo & M.Adler, *Pannoparmelia anzioides: a taxonomic synonym of Pannoparmelia angustata* (Parmeliaceae, Lichenes), *Mycotaxon* 43: 487–498 (1992).

Thallus without isidia; apothecia commonly present; lower cortex white..... **P. angustata**
Thallus with isidia; apothecia rarely present; lower cortex yellow **P. wilsonii**