

***Pertusaria xanthoplaca* Müll.Arg., *Flora* 65: 485 (1882)**

T: Toowoomba, Qld, 1881, *C.Hartmann* 32; holo: G; iso: MEL 7286.

Pertusaria persulphurata Müll.Arg., *Nuovo Giorn. Bot. Ital.* 23: 391 (1891). T: Brisbane, Qld, *F.M.Bailey s.n.*: holo: G.

Pertusaria fallax f. *sulphurea* F.Wilson, *Victorian Naturalist* 4: 87 (1887), *nom. nud.*

Illustration: A.W.Archer *Biblioth. Lichenol.* 69: 123. fig. 41 (1997); A.W.Archer, *Fl. Australia* 56A: 106, pl. 55 (2004).

Thallus dull to bright yellow, areolate and cracked, smooth, lacking isidia. Soralia scattered, somewhat immersed, 0.2–0.5 mm diam. Apothecia rare, verruciform, scattered, rarely confluent, concolorous with the thallus, slightly flattened-hemispherical, becoming constricted at the base, 0.5–1.0 mm diam. Ostiole inconspicuous, pale to dark yellowish brown, 1 per verruca. Ascospores 8 per ascus, irregularly uniseriate, ellipsoidal, rarely subfusiform, smooth, 50–75 (–90) × 25–37 µm.

Chemistry: Thallus K–, KC+ orange, C+ orange, Pd– or Pd+ weak yellow; containing thiophanic acid (major), stictic acid (major), constictic acid (minor), 2-chloro-6-*O*-methyl-norlichexanthone (trace), ±lichexanthone (minor to trace) and 4-chloro-6-*O*-methylnorliche-xanthone (trace); rarely with additional norstictic acid (minor).

A conspicuous, saxicolous species on exposed rock in eastern Qld, N.S.W. and Tas.; often growing with *P. subventosa*; also in Papua New Guinea, New Caledonia, Lord Howe Is., Norfolk Is. and New Zealand.

Qld: Kennedy Development Rd, 7 km SSW of Lyndhurst, *H.Streimann* 46853 (CANB); Staircase Ra., 18 km SE of Springsure, *J.A.Elix* 34287 (CANB); Magill S.F., *R.W.Rogers* 2369 (BRI). N.S.W.: Colo R., 50 km NW of Sydney, *D.Verdon* 2603 (CANB); Hat Head summit, Hat Head Natl Park, *A.W.Archer* P379 (NSW). Tas.: c. 1 km NE of Coles Bay township, *G.Kantvilas* 164/07 (HO); western slopes of Mt Freycinet, *G.Kantvilas* 149/95 (HO).

The species is characterised by the yellow, sorediate thallus and the presence of thiophanic and stictic acids. Fertile specimens are very uncommon. It can be distinguished from the somewhat similar *P. hypoxantha* (*q.v.*) the presence of soredia. Only one Australian specimen is known to contain additional norstictic acid. *Pertusaria xanthoplaca* can be distinguished from *P. remota* by the absence of hypostictic acid.