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

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


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


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 thiophaninic acid (major), stictic acid (major), constrictic acid (minor), 2-chloro-6-O-methyl-norlichexanthone (trace), ±lichexanthone (minor to trace) and 4-chloro-6-O-methylnorliche-xanthon (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 thiophaninic 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.