

Pertusaria georgeana A.W.Archer & Elix, in A.W.Archer, *Biblioth. Lichenol.* 69: 68 (1997)

T: Carnarvon Hwy, 88 km ENE of St. George, Qld, 27°23'S, 148°53'E, 18 Aug. 1993, *J.A.Elix* 33995; holo: CANB.

Thallus off-white to dull fawn or pale olive-green, dull to somewhat glossy, smooth to subtuberculate. Soredia absent. Isidia inconspicuous, numerous, simple, rarely branching, concolorous with the thallus, 0.1–0.2 mm tall, c. 0.05 mm wide, occasionally becoming blastidiate and coarsely sorediate with age. Apothecia not seen.

Chemistry: Thallus K–, KC–, C–, Pd–; containing 4,5-dichlorolichexanthone (minor) and a depside.

Pertusaria georgeana is characterised by the isidiate thallus and the presence of 4,5-dichlorolichexanthone in the thallus. It resembles *P. montpittensis*, but the latter contains stictic acid. The absence of stictic acid also separates *P. georgeana* from *P. pilosula*.

Five varieties are distinguished based on depsides in their thalli:

var. *georgeana*: 2-*O*-methylperlatolic acid

var. *goonooensis*: 2,4-di-*O*-methylolivetic acid

var. *methylstenosporica*: 2-*O*-methylperlatolic acid and 2-*O*-methylstenosporic acid

var. *occidentalis*: 2-*O*-methylconfluentic acid

var. *victoriana*: planaic acid

a. *Pertusaria georgeana* A.W.Archer & Elix var. *georgeana*

Illustration: A.W.Archer, *op. cit.* 61, fig. 17.

Chemistry: containing 4,5-dichlorolichexanthone (minor) and 2-*O*-methylperlatolic acid.

This endemic, corticolous lichen is known only from the type locality in south-central Qld, N.S.W. and the A.C.T.

N.S.W.: Bomera, 7 km W of Premer, *J.A.Elix* 36198 (CANB). A.C.T.: Kowen Forest, 16 km E of Canberra, *J.A.Elix* 33213 (CANB).

b. *Pertusaria georgeana* var. *goonooensis* Elix & A.W.Archer, *Australas. Lichenol.* 61: 26 (2007)

T: Modriguy Forest Rd, Goonoo State Forest, 5 km E of Modriguy, 23 km NNE of Dubbo, N.S.W., 32°04'16"S, 148°42'53"E, alt. 330 m, on dead wood, 11 Oct. 2005, *J.A.Elix* 36764; holo: CANB.

Illustration: J.A.Elix & A.W.Archer, *op. cit.* 28, fig. 1.

Isidia globose at first, proliferating or becoming blastidiate and coarsely sorediate with age.

Chemistry: containing 4,5-dichlorolichexanthone (minor), 2,4-di-*O*-methylolivetic acid (major), 2-*O*-methylperlatolic acid (minor).

A rare corticolous and lignicolous variety known only from central-western N.S.W.

N.S.W.: type locality, base of *Eucalyptus*, *J.A.Elix* 36750, 36751, 36752, 36956 (CANB); *loc. id.*, on dead wood, *J.A.Elix* 36765 (CANB).

c. *Pertusaria georgeana* var. *methylstenosporica* A.W.Archer & Elix, *Australas. Lichenol.* 65: 31 (2009)

T: Denmire Creek, 32 km ESE of Gilgandra, Goonoo State Forest, N.S.W., 31°55'43"S, 148°59'32"E, alt. 370 m, on dead branch of *Eucalyptus* in open *Eucalyptus* woodland, 12 Oct. 2005, *J.A.Elix* 38214; holo: CANB.

Illustration: A.W.Archer & J.A.Elix, *op. cit.* 37, fig. 4.

Isidia becoming coarsely sorediate with age.

Chemistry: 4,5-dichlorolichexanthone (minor), 2-*O*-methylperlatolic acid (major) and 2-*O*-methylstenosporic acid (submajor).

A very rare lichen in central-western N.S.W.

d. *Pertusaria georgeana* var. *occidentalis* Elix & A.W.Archer, *Australas. Lichenol.* 65: 32 (2009)

T: Brookton Highway Nature Reserve, Darling Plateau, 25 km W of Brookton, W.A., 32°23'50"S, 116°44'03"E, alt. 285 m, on dead wood in open *Eucalyptus* woodland, 5 Apr. 2006, *J.A.Elix* 38727; holo: PERTH; iso: CANB.

Illustration: J.A.Elix & A.W.Archer, *op. cit.* 37, fig. 4.

Isidia globose at first, proliferating or becoming blastidiate and coarsely soresiate with age.

Chemistry: 4,5-dichlorolichexanthone (minor), 2-*O*-methylconfluentic acid (major) and planaic acid (minor or trace).

Occurs on dead wood and on the bases of *Eucalyptus* trees in open *Eucalyptus* woodland in south-western W.A.

W.A.: type locality, on dead wood, *J.A.Elix* 38720 (CANB, HO, PERTH).

e. *Pertusaria georgeana* var. *victoriana* A.W.Archer & Elix, in J.A.Elix, S.Jariangprasert & A.W.Archer, *Telopea* 12: 266 (2008)

T: Reef Hills State Park, 7 km SSW of Benalla, Vic., 36°36'53"S, 145°56'03"E, alt. 155 m, on stump in open *Eucalyptus* woodland, 5 May 2006, *J.A.Elix* 36957; holo: CANB; iso: MEL.

Illustration: J.A.Elix, S.Jariangprasert & A.W.Archer, *op. cit.* 267, fig. 5.

Isidia simple, rarely branched.

Chemistry: 4,5-dichlorolichexanthone (minor) and planaic acid (major).

This lignicolous variety is known from woodland in N.S.W., A.C.T. and Vic.

N.S.W.: Shingle Ridge, 5 km N of Molong along road to Yeoval, *J.A.Elix* 38542 (CANB); Spring Creek Track, Goobang Natl Park, 30 km NE of Parkes, *J.A.Elix* 39216, 39230 (CANB). A.C.T.: Canberra Nature Park, Aranda Bushland, 4 km W of Canberra, *J.A.Elix* 38800, 38804 (CANB). Vic.: Chiltern-Mount Pilot Natl Park, 2 km N of Chiltern, *J.A.Elix* 36923, 36927, 36957 (CANB).