

Australasian Lichenology

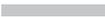
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Normandina pulchella is readily identified by its distinctive blue-green colour and its ear-like squamules, which have raised and strongly inrolled margins. It colonizes a range of substrata, including rock, tree bark, moist humus, leaves, and even other lichens, and it's moderately tolerant of air pollution. It often produces dense patches of moss-green soredia on the surface and margins of its squamules, but ascomata and conidiomata are unknown. Occasional reports of perithecia have mostly been dismissed as fruiting bodies produced by *Lauderlindsaya borrieri* or other lichenicolous Ascomycetes. Often overlooked because of its small size, it's nearly cosmopolitan in its distribution.

1 mm 

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**A new *Cratiria* (Caliciaceae, Ascomycota) with
triseptate ascospores from Papua New Guinea**

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Abstract

The saxicolous *Cratiria buloloensis* Elix, from Papua New Guinea, is described as new to science.

Introduction

This paper continues my investigation of *Buellia*-like lichens in the Pacific islands; for recent additions see Elix (2016, 2019) and Elix & Mayrhofer (2019). The genus *Cratiria* Marbach includes species that are characterized by relatively large, submuriform, 1- or 3-septate ascospores, 15–28 × 7–13 μm, with apical wall-thickenings, short, bacilliform conidia 4–6 μm long, a hymenium that can be interspersed with oil droplets or not and an excipulum containing lichen substances (Marbach 2000; Elix 2014; Elix & Mayrhofer 2020). In this paper, I describe a new saxicolous species of *Cratiria* with 3-septate ascospores from Papua New Guinea. Methods are as described in the previous papers cited above.

***Cratiria buloloensis* Elix, sp. nov.**
Mycobank No.: **MB 843459**

Fig. 1

Similar to *Cratiria lauricassiae* (Fée) Marbach, but differs in having a saxicolous thallus and in containing atranorin and diploicin rather than norstictic acid.

Type: Papua New Guinea, Morobe Province, Road 4, 4.6 km SW of Bulolo, 07°14'S, 146°36'E, 1500 m alt., on boulder in regrowth forest at margin of *Araucaria* plantation, *H. Streimann* 33480A, 16.i.1983 (holotype – CANB).

Thallus crustose, to 20 mm wide and 0.2 mm thick, continuous, verrucose-areolate; individual areoles irregular, convex, 0.2–0.5 mm wide; upper surface grey-white, smooth; prothallus not apparent; medulla white, lacking calcium oxalate (H₂SO₄-), I-; photobiont cells 8–13 μm in diam. *Apothecia* 0.4–0.9 mm wide, lecideine, adnate to sessile, dispersed, round or distorted with age; disc black, epruinose, plane then markedly convex. *Excipulum* thin, excluded in older, convex apothecia, in section 40–55 μm thick, outer zone dark brown, K+ pale yellow, N-, inner zone brown. *Epithymenium* 8–10 μm thick, brown, K-, N-. *Hypothecium* 75–80 μm thick, extending to 150–200 μm thick in the central stipe, brown-black, K-, N-. *Hymenium* 50–75 μm thick, colourless, not or only sparingly interspersed; subhymenium 15–20 μm thick, colourless to pale brown. *Paraphyses* 1.5–2 μm wide, moderately branched, capitate, with apices 3–4.5 μm wide and brown caps. *Asci* *Bacidia*-type, 8-spored. *Ascospores* initially 2-septate but soon 3-septate, brown, elongate-ellipsoid, 14–[18.2]–22 × 6.5–[7.7]–9.5 μm; outer spore-wall weakly ornamented. *Pycnidia* not seen.

Chemistry: Thallus K+ yellow, P+ pale yellow, C-, UV-; containing atranorin (major), diploicin (minor).

Etymology: The species is named after the type locality.

Remarks

Cratiria buloloensis is characterized by the verrucose-areolate, pale grey crustose thallus, with a non-amyloid medulla that lacks calcium oxalate, the adnate to sessile, lecideine apothecia with epruinose discs, a non-interspersed or sparingly interspersed hymenium, 3-septate ascospores, 14–22 × 6.5–9.5 μm, and the presence of atranorin and diploicin. The pantropical



Figure 1. *Cratiria cinnamomea* (holotype in CANB). Scale = 2 mm.

C. lauricassiae has similar-sized, usually 3-septate ascospores, but it differs in being invariably corticolous, in containing norstictic acid and in the ascospores occasionally having 1 or 2 additional transverse septa (Nordin 2000; Elix 2011). *Cratiria lauricassiaeoides* (Aptroot) Elix from Papua New Guinea also has mainly 3-septate ascospores and chemistry that is identical to *B. buloloensis*, but it differs in having larger ascospores, 21–[23.2]–26 × 8–[8.9]–10 µm, which sometimes become 4-septate, as well as being corticolous (Aptroot *et al.* 1997; Nordin 2000).

At present *Cratiria buloloensis* is known only from the type locality. Associated species include *Cladonia ramulosa* (With.) J.R.Laundon, *Dirinaria aegialita* (Ach.) Moore, *Heterodermia galactophylla* (Tuck.) Trevis., *Leucodermia leucomelos* (L.) Kalb, *Parmotrema cristiferum* (Taylor) Hale, *P. subrugatum* (Kremp.) Hale, *P. tinctorum* (Despr. ex Nyl.) Hale, *Physcia atrostriata* Moberg and *Rinodina xanthomelana* Mull.Arg.

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Figure 1. *Cratiria buloloensis* (holotype in CANB). Scale = 2 mm.