



## RELICINA <sup>1</sup>

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*Relicina* (Hale & Kurok.) Hale, *Phytologia* 28: 484 (1974).

Type: *R. relicinula* (Müll.Arg.) Hale

Thallus foliose, with lobes flattened, dorsiventral, with black, marginal cilia, mostly with a bulbous base; upper surface yellow to yellow-green, occasionally maculate, lacking cortical hairs and pseudocyphellae, corticate, with a pored epicortex; lower surface pale brown to black, with simple or branched rhizines extending to the lobe margins. Photobiont trebouxoid. Ascomata apothecia, lecanorine, laminal; disc imperforate, pale to dark red-brown, epruinose; proper exciple cupulate; thalline margin entire to crenulate, commonly with a fringe of cilia at the base, sometimes becoming  $\pm$  coronate on account of bulbous pycnidia. Paraphyses 2–3  $\mu$ m thick, straight, sparsely branched; apices brown-pigmented, capitate, 3–6  $\mu$ m wide. Asci 8-spored, of the *Lecanora*-type: clavate; tholus well-developed, amyloid, pierced entirely by a narrow, non-amyloid *masse axiale* with parallel flanks; ocular chamber not developed. Ascospores simple, hyaline, ellipsoid; wall to c. 0.5  $\mu$ m thick. Conidiomata pycnidia, laminal, immersed, often rather swollen. Conidia bifusiform or cylindrical to fusiform. Chemistry: usnic acid, together with depsidones, depsides or fatty acids.

A genus of c. 50–60 species of yellowish, foliose lichens found mainly in tropical and subtropical regions of South-East Asia and Australasia. Species of *Relicina* occur mostly on bark, usually in wet habitats such as mangroves and rainforests. Originally the genus was characterised by its bulbate cilia and bifusiform conidia but molecular studies by Kirika *et al.* (2017) led to the uniting of *Relicina* with *Relicinopsis* (which has tapered cilia and fusiform to cylindrical conidia). This nomenclatural change has not affected the two Tasmanian species, which represent the southernmost limits of the genus and are easily recognised in the field by their yellowish upper surface with the lobes having a thin, black border from which arise scattered, black, bulbous cilia; both occur exclusively on rock. The cilia readily distinguish it from *Xanthoparmelia* with which it invariably occurs, and which differs further in lacking the polysaccharide isolichenan in its hyphal walls.

Key references: Elix (1996); Kantvilas *et al.* (2002).

1 Thallus isidiate  
Thallus not isidiate

2 *R. subnigra*  
1 *R. limbata*

### 1 *Relicina limbata* (Laurer) Hale

*Phytologia* 28: 484 (1974); —*Parmelia limbata* Laurer, *Linnaea* 2: 39 (1872).

Thallus loosely adnate, forming extensive, continuous colonies to c. 20 cm wide; lobes 0.8–2.5(–3) mm wide, plane to convex, loosely imbricate at the thallus centre, rather separate at the periphery with the apices rounded to rather truncate, sometimes a little revolute; upper surface pale yellow, smooth, sometimes faintly maculate, with the margins black-edged and abundantly ciliate; isidia absent; axils rather sinuous; medulla white; lower surface dark brown to blackish brown. Apothecia 1.3–4.5 mm wide; disc

1 This work can be cited as: Kantvilas G (2024). *Relicina*, version 2024:1. In MF de Salas (Ed.) *Flora of Tasmania Online*. 2 pp. (Tasmanian Herbarium, Tasmanian Museum and Art Gallery: Hobart). <https://flora.tmag.tas.gov.au/lichen-genera/relicina/>

2 Tasmanian Herbarium, Tasmanian Museum & Art Gallery, PO Box 5058, UTAS LPO, Sandy Bay, TAS 7005, Australia.

glossy, dark brown, plane to undulate to convex; thalline margin persistent, smooth at first, becoming markedly crenulate and segmented by radial cracks, with glossy black cilia protruding from beneath. Ascospores 7–8.7–10(–11) × (3.5–)4–5.0–6 µm. Conidia 6–8 × 1 µm.

Chemistry: usnic acid, stictic acid (major) and peristictic acid, with traces of norstictic and cryptostictic acids; medulla K+ yellow, KC–, C–, P+ orange, UV–.

Locally abundant on large outcrops of hard, siliceous rocks, especially granite and quartzite, in coastal, dry sclerophyll forest and heathland, mostly in the east, north-east and the Furneaux Islands. Also occurring along the length of the eastern seaboard of mainland Australia. The absence of isidia readily distinguishes it from *R. subnigra*.

Cape Tourville, 42°08'S 148°20'E, 100 m, 1973, G.C. Bratt 73/296 (HO); Rocky Cape, 40°51'S 145°31'E, 1980, G. Kantvilas 745/80 (BM, HO); Flinders Island, Mt Killiecrankie, 39°49'S 147°52'E, 310 m, 2006, G. Kantvilas 20/06(HO).

## 2 *Relicina subnigra* Elix & J. Johnst.

*Mycotaxon* 31: 502 (1988).

Essentially identical morphologically, anatomically and chemically to *R. limbata*, and differing only in the presence of occasional to very dense, coralloid, simple or sparsely branched isidia to 0.5 mm tall. It has a distribution that overlaps with that of *R. limbata*, although it also extends into more inland sites such as Bluff River Gorge, where it occurs on exposed bluffs of coarse sandstone. It is also known from south-eastern mainland Australia.

Mt Cameron, 40°59'S 147°56'E, 1973, G.C. Bratt & J.A. Cashin 73/1246a (HO); Flinders Island, Middle Patriarch, 39°59'12"S 148°11'18"E, 150 m, 2003, J.S. Whinray 3898 (CANB, HO); Alum Cliffs, 41°32'S 146°26'E, 350 m, 2005, G. Kantvilas 229/05 (HO).

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- Kirika PM, Divakar PK, Leavitt SD, Buarang K, Crespo A, Mugambi G, Gatheri GW, Lumbsch HT (2017) The genus *Relicinopsis* is nested within *Relicina*. *Lichenologist* **49** 189–197.

## INDEX

<b>L</b>		<i>Relicina limbata</i> .....	<b>1, 2</b>
<i>Lecanora</i> .....	1	<i>Relicina relicinula</i> .....	1
<b>P</b>		<i>Relicina subnigra</i> .....	<b>2</b>
<i>Parmelia limbata</i> .....	1	<i>Relicinopsis</i> .....	1
<b>R</b>		<b>X</b>	
<i>Relicina</i> .....	1	<i>Xanthoparmelia</i> .....	1