



New fertile isidiate Graphidaceae from the Solomon Islands

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Abstract

Two new species of Graphidaceae are described from the Solomon Islands. *Fissurina longiisidiata* occurs on tree bark in lowland forests and is characterized by the presence of long cylindrical, glossy green isidia and 3-septate ascospores. *Pseudoramonia isidiata* occurs on dead leaves in mountain forest and is characterized by the presence of gnarled, somewhat tapering, whitish grey isidia and 7-septate, somewhat clavate ascospores.

Key words: taxonomy, pacific, *Fissurina*, *Pseudoramonia*

Introduction

The Solomon Islands are a tropical archipelago in the Pacific Ocean, east of New Guinea. There are several factors that positively influence the lichen diversity (Archer 2007): they are geologically relatively old, original forest remains on some islands, and some islands contain relatively high mountains.

In the Solomon Islands, lichens were only collected during one expedition in 1965–1966 by David Hill. Relatively few species from these collections have been reported so far, but 75 species of lirelline Graphidaceae Dumortier (1822: 69) were reported by Archer (2007) and a dozen thelotremoid Graphidaceae by Hale (1981). Two new species are described here from the same collection.

Sterile isidiate lichens are relatively common in the tropics. Those that contain trentepohlioid algae and have a corticate thallus in some shade of grey are mostly assumed to be Graphidaceae, but identification or formal description is usually only possible when ascomata are found or by means of molecular data. Here, two fertile, isidiate species are described as new to science. Both are quite characteristic and should be looked for elsewhere.

Material and methods

Descriptive work was carried out in Soest using an Olympus SZX7 stereomicroscope and an Olympus BX50 compound microscope with interference contrast, connected to a Nikon Coolpix digital camera. Sections were mounted in tap water, in which all measurements were taken. The chemistry of the type specimens was investigated by thin-layer chromatography (TLC) using solvent A (Orange *et al.* 2001).

Taxonomic Treatment

Fissurina longiisidiata Aptroot, *sp. nov.* (Fig. 1)

Mycobank #807113

Fissurina with long cylindrical, glossy green isidia and 3-septate ascospores.

Type:—SOLOMON ISLANDS. Isabel Province: Santa Isabel Island, between Tatamba and Rego; 0 m; on tree along the shore; 2 October 1965, *D.J. Hill 11083* (holotype BM!; isotype ABL!).

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