

## **Disjunct Naturalists**

WEBSITE OF THE CENTRAL NORTH FIELD NATURALISTS

## Slime mould log

by Sarah Lloyd

15th October | 7th November



November 7th 2013 (Amended 2014/01/18 & 2016/02/01)

Elaeomyxa reticulosporum/australiensis

I first collected what I thought was *Lamproderma cribrarioides* on 18th August 2012. It was on a small twig on the ground in Thismia Gully.

I used the key in Martin and Alexopoulos <sup>1</sup> with immediate success - at least I thought so at the time. This is because *L. cribrarioides* is one of the few slime moulds with very distinctive spores. They are around 10 micrometres, light brown by transmitted light with a very distinctive reticulate surface net.

I have been working through my collections of *Lamproderma* species and taking micrographs of spores etc. When viewed through the compound microscope I realised the similarities between it and the species I'd misidentified as *Comatricha* (see October 15th below). I checked the species description for *L. cribrarioides* in M&A but there is no reference to nodules on the capillitia although the accompanying drawing does depict one small protuberance.

After receiving a paper entitled 'A study of *Lamproderma australiensis* and *L. reticulosporum*' by Moreno *et al*<sup>2</sup> I again checked my collections. They agree with the descriptions of both species described in the paper.

Lamproderma australiensis and L. reticulosporum are described as muscicolous (i.e. growing with moss) and are considered to be separate species bases on several factors, but mostly their very different habitats. L. reticulospora is known only from the type collection which was tropical habitat in western Java; L. australiensis is also known only from the type locality: alpine habitat at Thredbo.



spores and nodule

<sup>1</sup>Martin and Alexopoulos The Myxomycetes, Martin, G.W. & Alexopoulos,

C.J. (1969) University of Iowa Press, Iowa City <sup>2</sup>Moreno, G. Singer, H., & Stephenson, S.L. (2008) 'A study of *Lamproderma australiensis* and *L. reticulosporum. Bol. Soc. Micol.* Madrid 32, 2008



October 15th 2013 (Amended 2014/01/18 & 2016/02/01) Elaeomyxa reticulosporum/australiensis

In early October, in preparation for summer, I was burning a pile of upper branches of eucalypts trees that had been felled several years ago. Heavy rain during the previous few weeks meant that just

*E. reticulospora* during the previous few weeks meant that just about everything (except dry bracken fern) was sodden. On one of the wet twiggy branches near the bottom of the pile the all-too-familiar sight of a small group of white fluffy stalked spheres caught my eye. I searched similar substrate nearby and found some sporangia that did not have the white fungal infection.

At first I thought it was a *Lamproderma* sp. because of its iridescent golden peridium, and it resembled the *L. cribrarioides* I'd found a few years ago. I took the first step to identify the species and mounted a slide of spores to check with the oil immersion lens. To my surprise there were not one but two distinctive features! The 10-11  $\mu$ m spores have sinuous lines forming a reticulate pattern (most slime mould spores are indistinct) AND there are nodules on the capillitial threads. I had noticed a reference to *Comatricha* 



nodules

*nodulifera* in Poulain *et. al.*<sup>1</sup> when leafing through the book so I compared my collection with the description.



The sporangia I found are larger than those described in Poulain *et. al.* The stipe is 0.6 mm, reddish brown and shiny; the globose sporotheca are 0.6 mm; most sporangia are about 1.2 mm. And they differ in other respects: the sporangia occur in gregarious groups on the bark of twigs rather than the usually solitary sporangia that appear on bark in moist chambers. The spores are

spores

not 9-10  $\mu$ m and minutely punctuate but are 10-11  $\mu$ m, chocolate brown in mass, light brown by transmitted light with dark brown raised lines forming a large, sometimes incomplete, reticulum.

The shiny columella is 1/4 the height of the sporotheca; the golden (not dark) brown capillitium has distinctive nodules.

<sup>1</sup>Poulain M, Meyer M & Bozonnet J, *Les Myxomycètes* (2011) Federation mycologique et botanique Dauphine-Savoie Le Prieure, Sevrier

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