

**Ramaria subtilis** (Coker) Schild, *Z. Mykol* **48**: 118 (1982)

var. **microspora** R.H.Petersen & Watling, *Notes Roy. Bot Gdns. Edinburgh* **46**: 151 (1989)

A.M.Young, May 2014

*Preliminary Notes*: Neither fresh material of this species nor a herbarium collection with good field notes has yet to be seen by the author. The original collections made by Watling have both been removed from Australia and deposited in Edinburgh (E), an action this author considers extremely unfortunate for an Australian taxon. The macrodescription below is based on: first, the data provided by Fawcett (1940); second, notes with and from the two Watling collections; and third, the author's own notes made from personal examination of those two Watling collections. As yet the author is not aware of the existence of any colour image of the species.

The location and month for each of the Watling collection sites have been given here in the hopes that a new collection with full field notes and images will be obtained. Naturally, the author would be very, very interested in any such data so that these pages can be updated.

## Description

*Fruiting body* –10 × –5 cm, fasciculate tufts usually up to 8 cm diameter; overall shape often ±spherical; *apices* a shade of pure yellow ("canary yellow" *sensu* Watling) and may be perceived as concolorous with branches, minutely double dichotomous and often appearing cuspidate, tapered but rounded at the tips, dry; *branches* wholly yellow("chrome yellow" *sensu* Watling), cylindrical; *axils* mostly round, there may be some narrow or V-shaped axils in some parts of the fruiting body; *stipe* –3 × –2 cm, stout, white and Petersen & Watling indicate that the stipe displays "brunnescence where handled or in age", smooth, aborted branches present. *Flesh* solid, white. *Odour* and *taste* not recorded. *Rhizomorphs* not recorded as present.

*Macrochemical reactions*: unknown.

*Basidiospores* 7.7–9.9 × 3.5–4.5 μm, mean 8.6 × 3.9 μm, Q: 1.9–2.4(–2.7), mean Q: 2.18, narrowly ellipsoid to almost subcylindrical, inclusions absent, hilar appendix short but a little curved, ornamentation of randomly scattered, low warts, profile moderately rough; *basidia* 40–54(–81) × 7–10 μm, mean 45.9 × 8.1 μm, 4-spored, clamps absent; *sterigmata* up to 8 μm long, distinctly long-conical, straight to slightly curved; *trama* composed of thin-walled, often inflated hyphae 5–13 μm diam., clamps absent; *ampulliform septa* present, –15 μm diam., with delicate stalactitic ornamentation; gloeoplerous hyphae rare, –4 μm diam.

*Habit*: on the ground. *Habitat*: forest.

*Known distribution sensu Watling's collections*: Vic. (Gembrook, May); ACT (Tidbinbilla Nature Reserve, April).

*Notes*: This taxon appears to be a wholly yellow species as far as apices and branches are concerned. The only white section appears to be the solid stipe and as such this separates the species completely from both *Ramaria lorithamnus* (Berk.) Petersen and other "yellowish" taxa.

Stella Fawcett appears to have collected this species *circa* 1939 and identified it as *Clavaria flava* Schaeff. : Fr. Her description in the papers of the Royal Society of Victoria (52: 153, 1940) includes notes where she indicated that the colour of the specimen she collected strongly resembled that of *Clavaria sinapicolor* Cleland [≡ *Ramaria lorithamnus* (Berk.) R.H.Petersen] but it differed by having a solid and compact base. She found spores measuring 7 – 11 × 3.2 – 4.3 μm which is in reasonable agreement with the measurements found by both Watling (8.6–10.8 × 4–4.7 μm) and those of this study - remembering that spores in this genus are very variable depending upon maturity of the fruiting body and the location of the spore sample on the fruiting body.

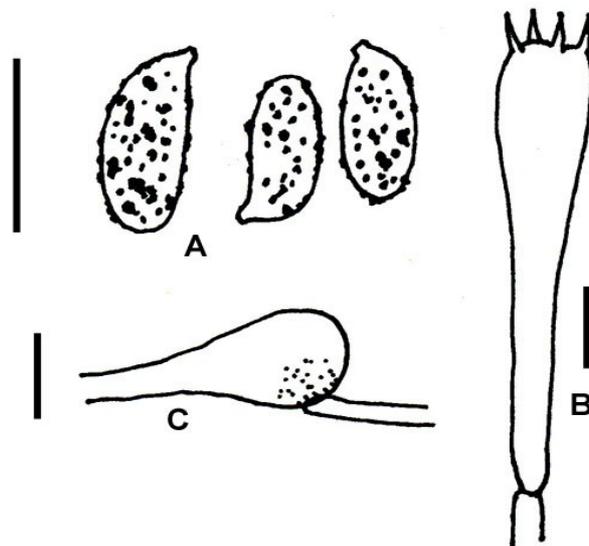
Unfortunately, Fawcett did not indicate the locations for the MELU collections on which she based her

diagnosis, however only three collections at MELU are labelled as either *Clavaria flava* or *Clavaria flavobrunnescens* and all three contain material that is referable to *Ramaria subtilis* var. *microspora*. Fawcett recorded that her collections did not display brunnescent staining on the stipe, but it is quite possible that this staining character varies enormously with the collection (age, local variety, etc.), the collector's observations and whether or not the substrate itself contributed to staining of the stipe which obliterated the reaction of the basidioma itself. Only additional fresh collections will determine these aspects.

Several other taxa display the bright yellow coloration of *Ramaria subtilis* var. *microspora*. The Australian taxon cannot be *Ramaria flava* (Schaeff. : Fr.) Quél. because that species has clamp connections on most septa. Moreover, the images in Fawcett (1940) indicate that the Victorian material has a stout but not massive stipe, however descriptions of *Ramaria flava* indicate that its basidiomata produce stout and quite bulbous stipes. It equally cannot be *R. lorithamnus* because although that species does not have clamps, it occurs in fasciculate clumps with very slender stipes, never a stout stipe.

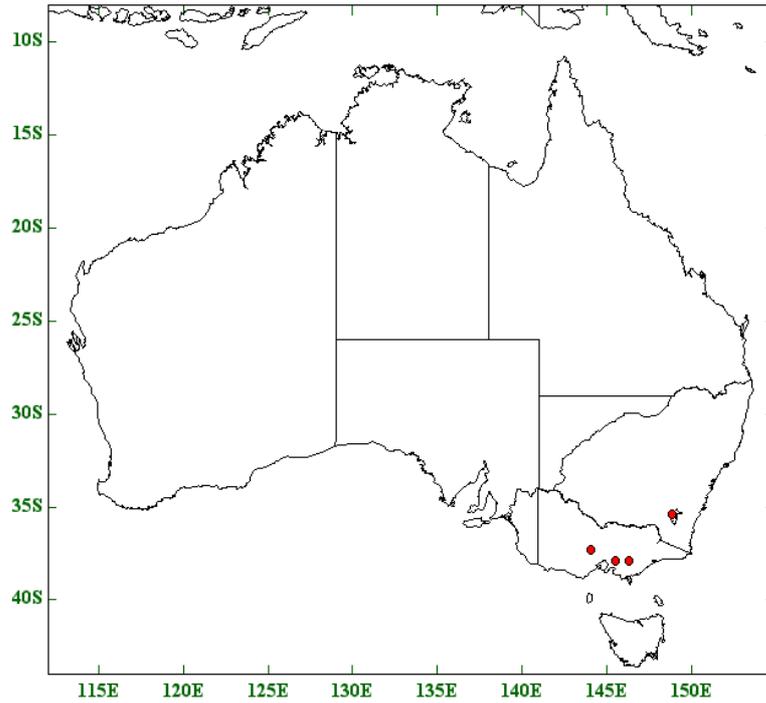


*Ramaria subtilis* var. *microspora*. This image shows the incredibly poor and fragmented state of the type collection held in Edinburgh herbarium (E 00139633). It is possible to deduce that the original specimen had a "stout base" and that it was open coralloid. Apart from those indications, little can be surmised other than the results from microscopic examination. © A.M.Young



*Ramaria subtilis* var. *microspora*, microdata from the type collection at Gembrook. A. basidiospores; B. basidium; C. ampulliform septum. Each scale bar = 10µm. © A.M.Young.

### *Ramaria subtilis* var. *microspora*



*Ramaria subtilis* var. *microspora*. Known Australian distribution.

### **Acknowledgements**

This document was produced from material contained in the 2007 Interim Submission (The Taxonomy of genus *Ramaria* in Australia: coralloid macrofungi) forwarded to ABRS at the cessation of the *Ramaria* project. ABRS is both acknowledged and thanked for their kindness in permitting me to make this information available to the Australian mycological community.