

Fruiting body 3–7.5 × 1–3.5 cm; *apices* yellowish to white, tapered or awl-shaped and acute, dichotomous or double dichotomous, dry; *branches* slender, cylindrical but also often flattened, golden-yellow to ochre-yellow but becoming olive to greenish olive or blue-green with age, surfaces smooth; *axils* generally narrowly rounded but some U-shaped axils may be present; *stipe* 0.5–1.5 × 0.3–1.4 cm, olive-ochre to dull ochre and may be almost absent to slender, aborted branches absent; rhizomorphs present as conspicuous white strands. *Flesh* white. *Odour* none to “earthy”; *taste* none to slightly bitter. All parts of this fungus become greenish to blue-greenish with age or rather rapidly on handling or bruising.

Macrochemical reactions Petersen indicates that a drop of 10% KOH on the stipe flesh will produce a colour change, however the nature of the colour change is not known to this author.

Basidiospores 5.8–7.9(–8.6) × (2.5–)3.0–4.3(–4.7) μm, mean 7.0 × 3.6 μm, Q: 1.5 – 2.3 (–2.6), mean Q: 1.95, narrowly ellipsoid to lacrymiform, golden-yellow in mass under the microscope, hilar appendix prominent and curved, profile echinulate, ornamented with randomly scattered acutely tipped spines 0.3–0.8 (–1.0) μm; *basidia* 40–60 × 5.5–6.5 μm, mean 51.0 × 5.9 μm, 4-spored, basally clamped; *sterigmata* –7 μm long, stout; *branch trama* composed of thin-walled hyphae 2.5–4.5 μm diam., clamps present, usually some hyphae with gnarled and/or thickened walls; *ampulliform septa* present, –12 μm diam., without stalactitic ornamentation; *gloeoplerous hyphae* not observed; *stipe trama* similar to branch trama; *rhizomorph trama* composed of similar hyphae to branch trama but hyphae narrower, 1.0–2.5 μm diam., and often with stellate crystals encrusted on the exterior walls.

Habitat: the first SA collection (1917) was reported from “fallen leaf mould” while the second (1969) was found on a “wood heap” - one might infer that it was in the wood debris close by the heap. The NSW collection from Bradley's Head (1917) is uncertain as to habitat, although it is possibly from dry eucalypt woodland on sandstone based soils. The two recent collections are well described. The Anglesea collection (Vic.) was from "Moonah" woodland based on *Melaleuca lanceolata* and the collection was found on mossy soil amongst litter. The first Lane Cove West collection (NSW) was found in a garden on soil composted with grass clippings and leaf litter. Another collection from the same location was found growing closely at the root-base of seedling palm trees (Cocos or Queen palm, *Syagrus romanzoffiana*).

Known Distribution: NSW: Bradleys Head, 1917; Lane Cove West, 2015; Vic: Anglesea, 2012; SA: Meningie, 1956, 1969.

Notes: Until recently, the three collections dated 1917, 1956 and 1969 were the only known and confirmed material of *Ramaria abietina* from Australia. Fawcett reported this species from Sherbrooke in Victoria in a paper she published in 1940, however no MELU collections in existence contain this taxon as far as this author knows. Fawcett stated that the species had rough rather than spiny spores and she did not record that there was any greenish staining when the fruiting body was bruised so that her description strongly suggests she may have been describing a collection of *Ramaria filicicola*. Although there is no Fawcett collection labelled with the location of Sherbrooke, one of her collections (MELU 7038F) was collected from Kallista on the edge of Sherbrooke Forest in April 1937 and has been positively identified as *Ramaria filicicola*. Given this Kallista collection, Fawcett's description, and the lack of any supporting MELU material, it is very likely that Fawcett's publication of *Ramaria abietina* is erroneous.

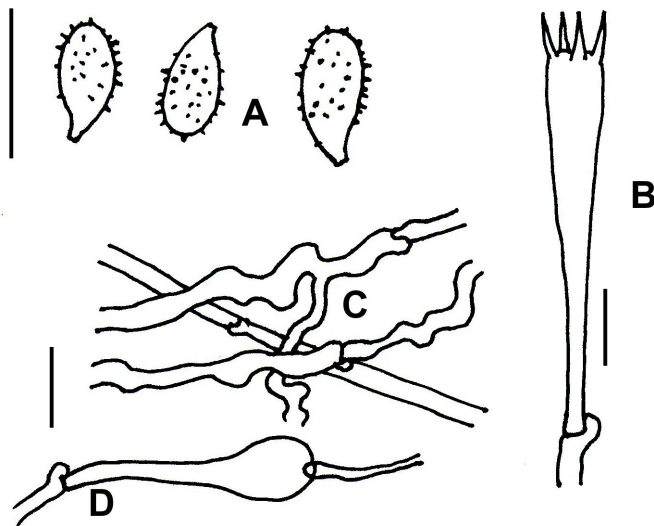
Little descriptive information could be obtained from the three early collections of 1917, 1956 and 1969 apart from their locations, dates and collectors. No descriptions of the fruiting bodies were included with the herbarium specimens, although the collection from Meningie, SA. (July 1969), includes a note stating “Plant green when bruised and old” and the herbarium specimen is still clearly greenish in colour. The collection from Bradleys Head in New South Wales (July 1917) is badly fragmented but retains sufficient colour to suggest that greenish tints were originally present. The macro-character description presented here is a collation of the species as presently known from Australia, but supplemented with some minor details from European and USA descriptions. The microcharacter description is derived from data solely collected from the Australian material.



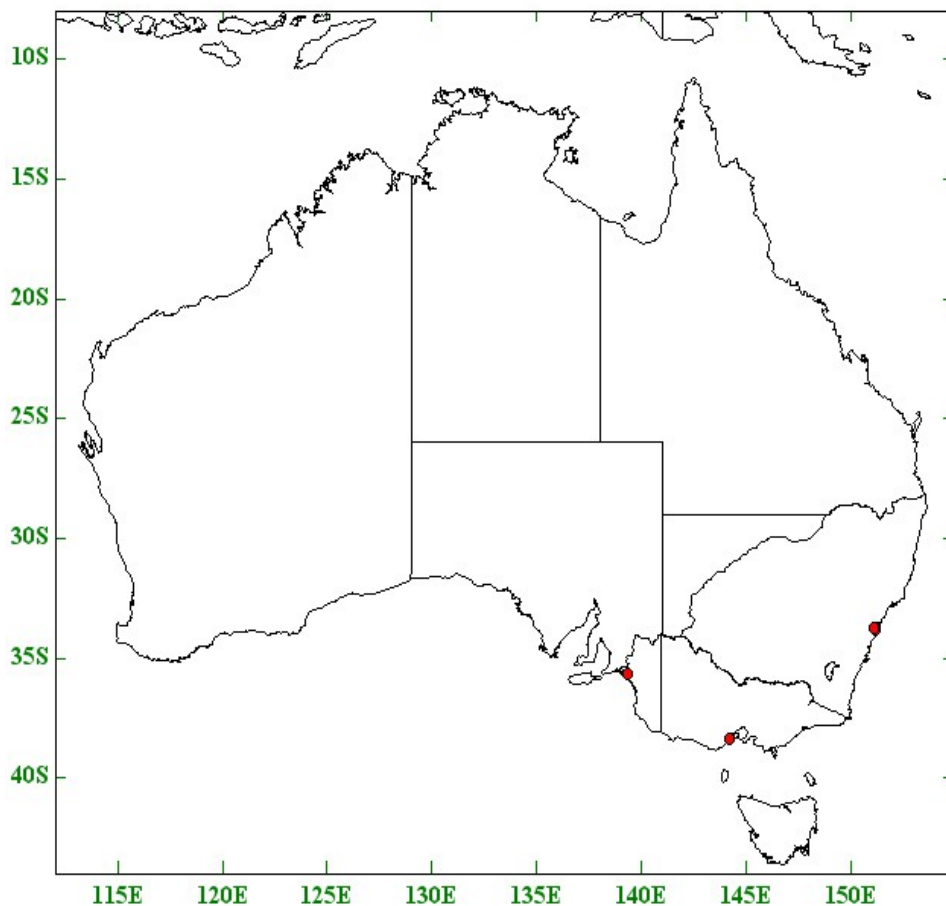
Ramaria abietina in litter (Lane Cove West, NSW). The golden-yellow to yellowish ochre colour of the fruiting bodies is very evident, while the branches clearly show a marked vertical and parallel orientation. © Ray and Elma Kearney.



Ramaria abietina in a mature stage (from litter, Victoria) showing the greenish discoloration that automatically takes place as the fruiting body reaches and passes maturity. © Marc Campobasso



Ramaria abietina microdata. A. basidiospores showing spines; B. basidium; C. branch tramal hyphae with both normal and gnarled hyphae; D. ampulliform septum, stalactitic ornamentation absent. Each scale bar = 10µm. © A.M.Young.



Ramaria abietina. Known Australian distribution. (Note: there are two known sites in the Sydney area, however the size of the location "dots" causes an overlap and only a single site seems present.)

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.

I should also like to express my personal thanks to:

Ray and Elma Kearney for the use of the *in situ* photograph and other details of the Lane Cove West collections;

Neil Tucker and Richard Hartland for the information on the Anglesea collection; and

Marc Campobasso for the image displaying the vivid green staining of the fruiting body as it matures.