

Basidiomata: up to 6 cm diam. and up to 10 cm high; *apices* dull white, tapered and awl-shaped, often dichotomous, dry; *branches* whitish to pale pinkish buff and then becoming buff-brown and more brownish as patches of basidiospores mature, cylindrical although sometimes flattened and usually very distinctly flattened near the axils, smooth but with scattered rough patches, vertically oriented; *axils* usually round but there may be occasional acute axils present; *stipe* 1–2 cm long and up to 0.5 cm diam., single, pale buff, smooth but with scattered rough patches, aborted branches absent. *Flesh* white, colour changes absent. *Odour* slightly fragrant to medicinal or absent; *taste* not recorded. *Rhizomorphs* present and usually abundant.

Macrochemical reactions: There are no records for Australian material but Petersen (in his book on New Zealand coral fungi) says that New Zealand specimens become deep slate-green when tested with a 10% aqueous solution of ferric chloride.

Basidiospores: (5.0–)5.8–7.2 × 3.2–4.3 μm, mean 6.3 × 3.8 μm, Q: 1.5–2.0, mean Q: 1.67, ellipsoid, occasionally uniguttulate but mostly granular, hilar appendage prominent and truncate, ornamentation of scattered warts and small ridges, spore wall and warts strongly cyanophilic in cotton blue; *basidia* 32–47 × 5.4–7.8 μm, mean 38.9 × 6.7 μm, 4-spored, clamped; *sterigmata* up to 8 μm long, distinctly long-conical, straight; *branch trama* monomitic, composed of thin-walled, clamped, sometimes inflated hyphae 3.5–14 μm diam., with or without scattered to abundant secondarily skeletalised generative hyphae 3–8 μm diam. which commence or end in a clamp or sometimes an ampulliform swelling, ampulliform septa present and common, skeletal and gloeoplerous hyphae absent; *stipe trama* monomitic and similar to branch trama except that ampulliform septa are abundant; skeletal hyphae are sometimes invasively present in the stipe trama immediately adjacent to the mycelium, but they do not penetrate any distance up the stipe; *ampulliform septa*, –16 μm diam., often with delicate stalactitic ornamentation present; *rhizomorphic trama* dimitic, generative hyphae similar to stipe trama but with abundant skeletal hyphae 1.5–2.5 μm diam. and often with secondarily skeletalised generative hyphae.

Habit: basidiomata emerging from mycelial mats (in or under litter on soil or in tree-fern debris) which are particularly noticeable when occurring in forests of *Pinus* spp., gregarious and may form "fairy rings".

Habitat: occurs in tree-fern areas (especially *Dicksonia antarctica*), but mostly found in forest or woodland; frequent in forests of *Pinus* spp. and also in mixed forest or woodland containing *Eucalyptus* and/or *Acacia* spp.

Known Distribution: The species has a wide southern and eastern distribution which extends from SW Western Australia, into South Australia, Victoria, Tasmania, New South Wales and southern Queensland. There is also a single record from the Kimberly area of Western Australia. The species also occurs in New Zealand.

Notes: In her original description (*Proc. of the Roy. Soc. Victoria*, 52, p 155, 1940) Stella Fawcett described the type habitat of *Ramaria filicicola* as being the "trunks of *Dicksonia antarctica*, usually immediately below the crown of leaves". Unfortunately, her description thus led to the situation in which the species was considered to be more or less restricted to tree-fern material. Herbarium records indicate that Fawcett's tree-fern substrate appears to be more "unusual than normal" when it is compared with the remainder of the recorded substrates frequented by *Ramaria filicicola*. Collection notes available to this study suggest that the species is almost always found on ground litter (with or without a tree-fern component) and that the litter may be derived from either native or exotic trees.

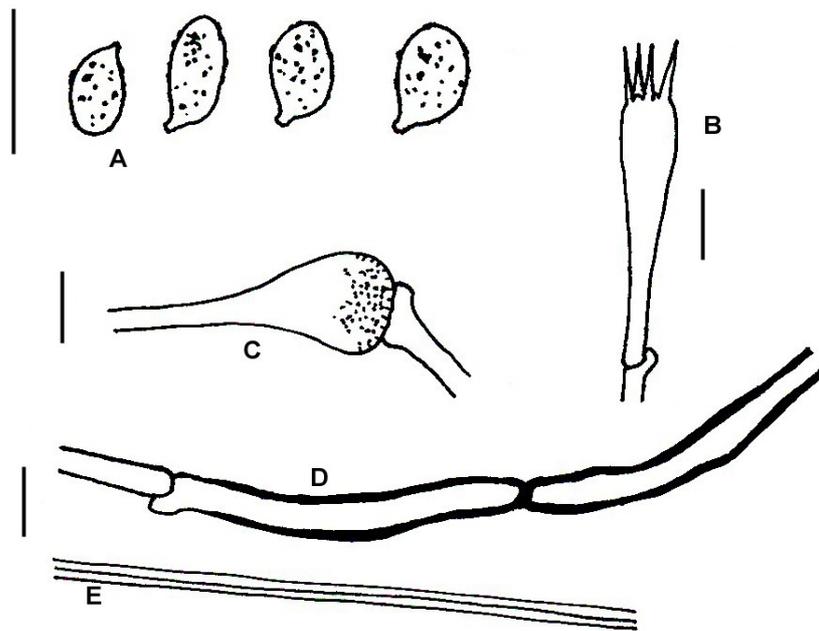
Ramaria filicicola is extremely similar to the northern hemisphere species, *R. gracilis*, and was indeed at first mistaken for this species. The two differ macroscopically in that *R. gracilis* usually has a distinct odour resembling aniseed, however that odour is absent from *R. filicicola*. Microscopically, the two species can be separated on the basis of the skeletal hyphae which are found only in the rhizomorphs of *R. filicicola*, but which also occur in the stipe and branches of *R. gracilis*.



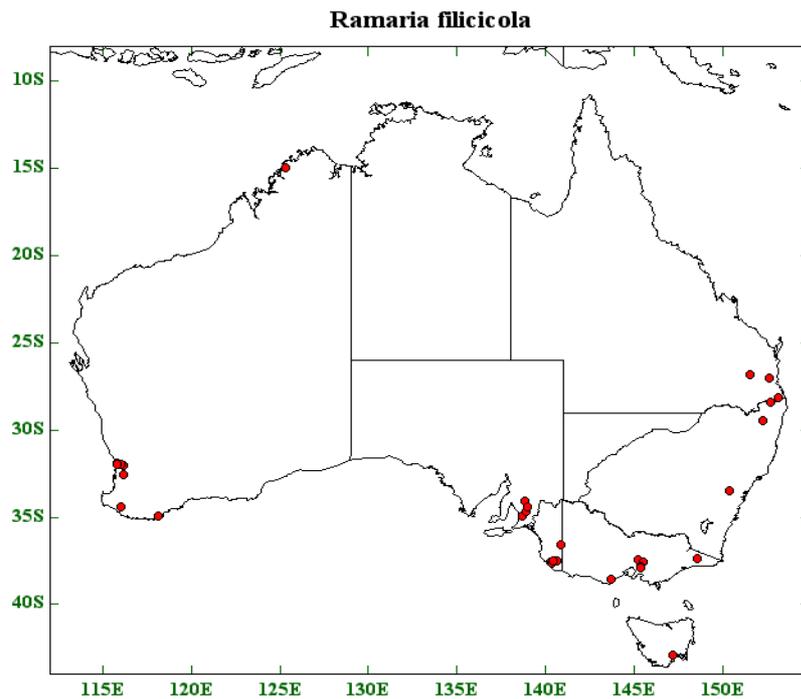
Ramaria filicicola as collected from Mt Mee, Qld. The dull ochre to greyish ochre branches are quite visible and the usually white apices are well displayed in the left hand specimen. Rhizomorphs can be seen in the litter attached to the right hand specimens. This collection was obtained from a sheltered location amongst deep forest litter, near the main walking track at the old saw-mill recreational park.



Ramaria filicicola as collected from a pine plantation (*Pinus* sp.) close to the Gibraltar Range National Park, NSW. The tufted habit is well displayed as are also the collections of rhizomorphs attached to the right hand specimen.



Ramaria filicicola microdata. A. basidiospores; B. basidium; C. aumpulliform septum; D. secondarily skeletalised hypha; E. skeletal hypha. Scale bars = 10 μ m. © A.M.Young.



Ramaria filicicola. Known Australian distribution.

Acknowledgements

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