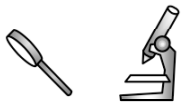
Dasythamniella superbiens (Harvey) Womersley

A SPECIES WITH FEW RECORDS

45.800.52

Techniques needed and plant shape



Classification Phylum: Rhodophyta; Order: Ceramiales; Family: Ceramiaceae; Tribe: Compsothamniae

***Descriptive name** flat-branched red thread alga

Features plants red-brown, 70-200mm tall, with felty main branches, side branches flat-branched

Special requirements view microscopically to find

- thread-like main branches (axes) of large, naked cells, densely coated (corticated) with ***rhizoids***, spreading side branches alternating along the axes and lying in ***one plane*** (distichous), short, twiggy branch tips (determinate branches) ***densely tufted***, markedly ***slenderer*** compared with side branches and branched ***radially***
- carposporophytes (the product of fertilisation) with branched fusion cell bearing ***2-4*** bunches of carposporangia, a wrapping (***involucre***) of branched cells arising just below the fusion cell (but difficult to separate from surrounding determinate branches)
- tetrasporangia in the determinate branches, ***stalkless*** and ***tetrahedrally*** divided

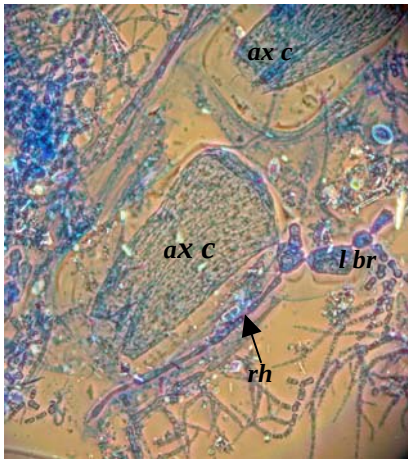
Occurrences only from Western Port, Victoria and Elliston S Australia

Usual Habitat 10-11m deep on limestone

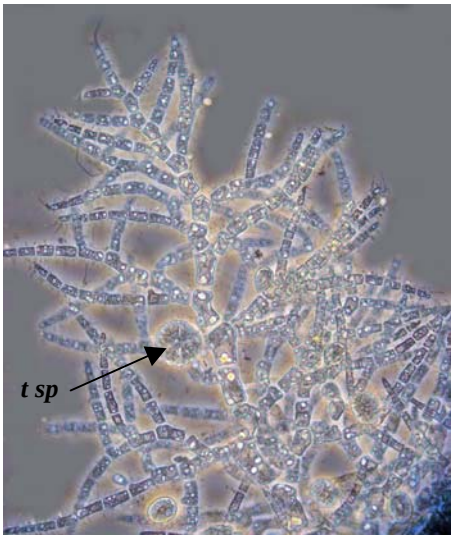
Similar Species similar flat-branched main branches to other *Dasythamniella* spp, but short tip branching is ***radial*** and tetrasporangia ***stalkless*** in *D. superbiens*. Differs from *D. plumigera* in ***narrower*** cells and straight, ***not curved***, branches near plant tips

Description in the Benthic Flora Part IIIC, pages 280-281

Details of Anatomy



1.



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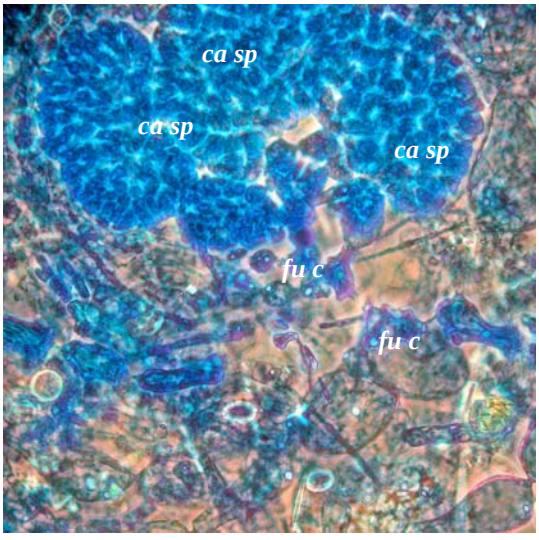
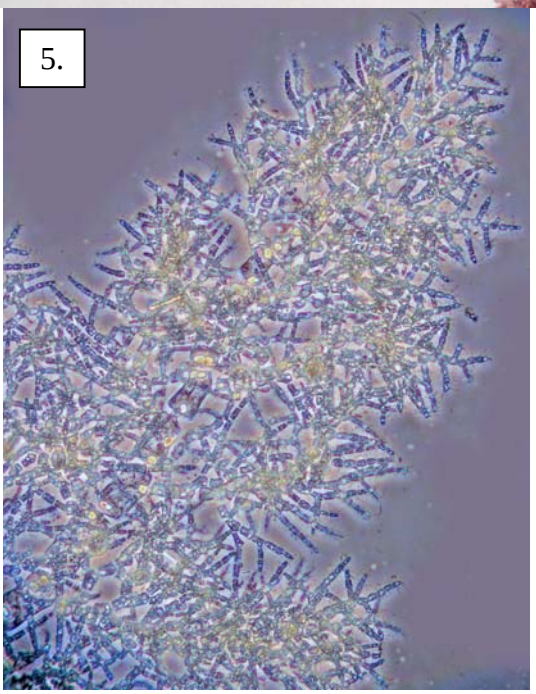


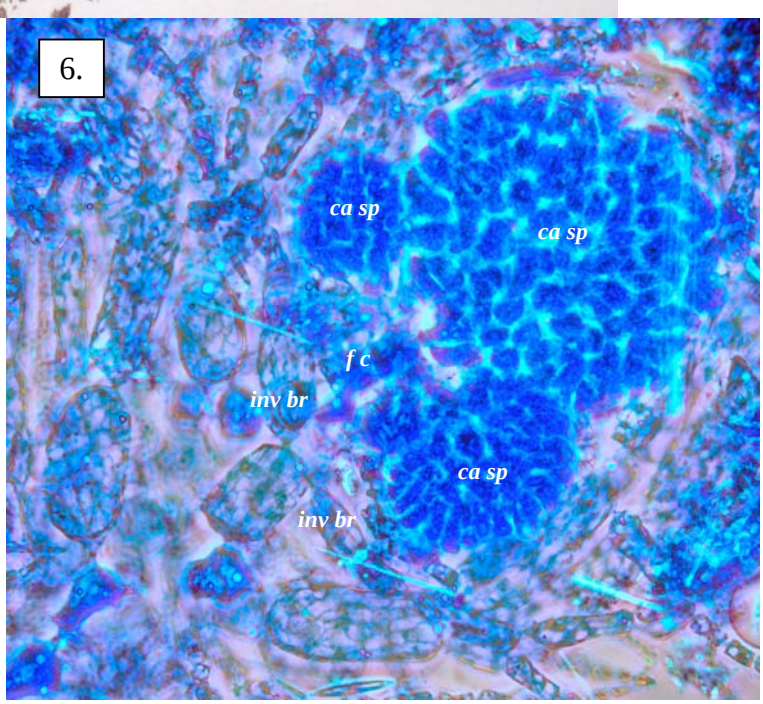
3.

Dasythamniella superbiens, A345951, stained blue and viewed under phase contrast microscopy.

1. axis of large cells (*ax c*) and rhizoid (*rh*) arising from the basal cell of a side branch (*l br*) (slide 16051)
2. stalkless tetrasporangium (*t sp*) in a radially branched tip tuft (slide 15994)
3. branched fusion cell (*fu c*) and several bunches of developing carposporangia (*ca sp*) (slide 16052)

* Descriptive names are inventions to aid identification, and are not commonly used





Dasythamniella superbiens A34951 stained blue and viewed under phase contrast microscopy

4. whole plant from Elliston Bay, S Australia

5. dense, radial branching of tip (determinate) branches (slide 15994)

6. developments after fertilisation showing bunches of developing carposporangia (*ca sp*) and involucral branches (*inv br*) arising from below the fusion cell (*f c*) (slide 16053)

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"Algae Revealed" R N Baldock, S Australian State Herbarium, February 2007