

Techniques needed and shape



Classification

Phylum: Rhodophyta; Order: Gigartinales; Family: Nemastomataceae
tattered leafy red weed

***Descriptive name**

Features



1. red-red brown, 100-650mm tall, of slightly slippery single or lobed broad blades, with small **lobes at edges**, expanding abruptly from a narrow stalk
2. surface faintly streaked with interconnecting **stream-like patterns**

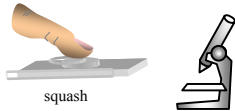
Occurrences

West Coast S Australia to Victoria and N Tasmania

Usual Habitat

on hard rocks in relatively deep water

Special requirements



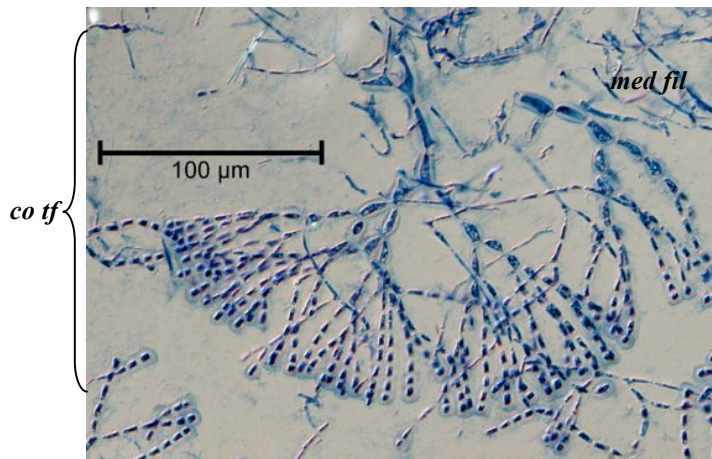
1. prepare a tissue squash under a coverslip and view microscopically to find
 - central mass (medulla) of intertwined threads
 - outer layers (cortex) of branched tufts facing outwards, inner cells slightly larger grading to small, elongate outermost cells in **straight** chains of about **10 cells**
 - patches each containing few **angular** carposporangia, lying beneath breaks in the outer layers or **slight** depressions in the blade surface (minute male spermatangia on outermost cells also possibly present on the same plant (monoecious condition))
2. sporangial plants (encrusting rocks) unknown in Australia

Similar Species

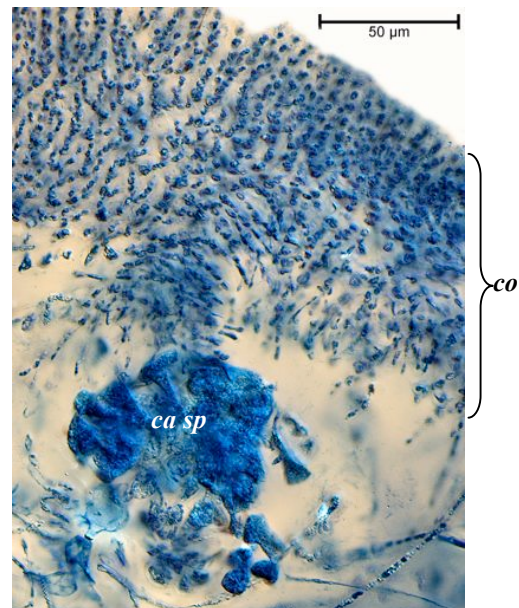
Schizymenia dubyi but that has blades with unbroken edges, surface stream-like patterns largely absent, shorter chains of outermost cortical cells, glands **absent**

Description in the Benthic Flora Part IIIA, pages 281-284

Details of Anatomy

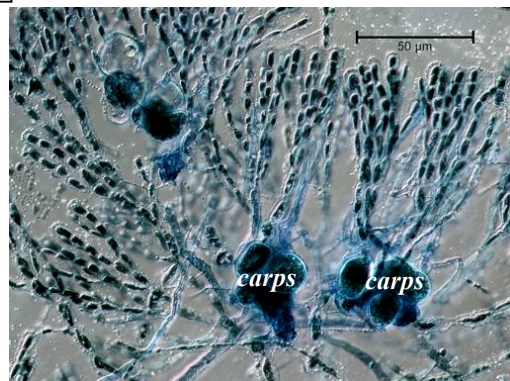


1.



2.

3.



Tissue squashes of *Platoma foliosum* stained blue and viewed microscopically

- 1 an isolated branch tuft from the outermost (cortex) layer (*co tf*) with long terminal cell chains and sparse, separated core (medulla) threads (*med fil*) (A61389 slide 12357)
2. edge of a blade: outer layer (cortex, *co*) and patch of carposporangia (*ca sp*) (A63573 slide 14577)
3. early stage in female reproduction with clusters of darkly staining cells (carposporophyte, *carps*) on basal cells of cortical branch tufts (A61389 slide 12360)

* Descriptive names are inventions to aid identification, and are not commonly used
"Algae Revealed", R N Baldock, S Australian State Herbarium, December 2011

4.



5.



6.



7.



Specimens and surface features at different magnifications of *Platoma foliosum* Womersley & Kraft from S Australia showing fringing lobes and stream-like surface patterns

4, 5. from Nora Creina 5-6m deep (A42227)

6, 7. a drift plant from Yilki, Victor Harbor (A63573)