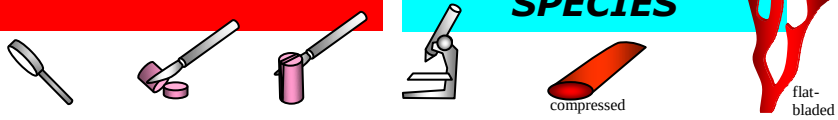
Trematocarpus affinis (J. Agardh) De Toni

A SPECIES WITH FEW RECORDS

AN INTRODUCED OR ADVENTIVE SPECIES

45.400



Techniques needed and shape

Classification Phylum: Rhodophyta; Order: Gigartinales; Family: Sarcodiaceae

***Descriptive name** thin gristly forks

Features plants red to red-brown, 50-80mm tall, gristly (***cartilaginous***), branches narrow, ***forked***, ***flattened,*** arising in ***one flat surface***

Occurrences from South Africa. Only known in southern Australia from sporangial plants at West I., S. Australia,

Usual Habitat on rock, 1-8m deep

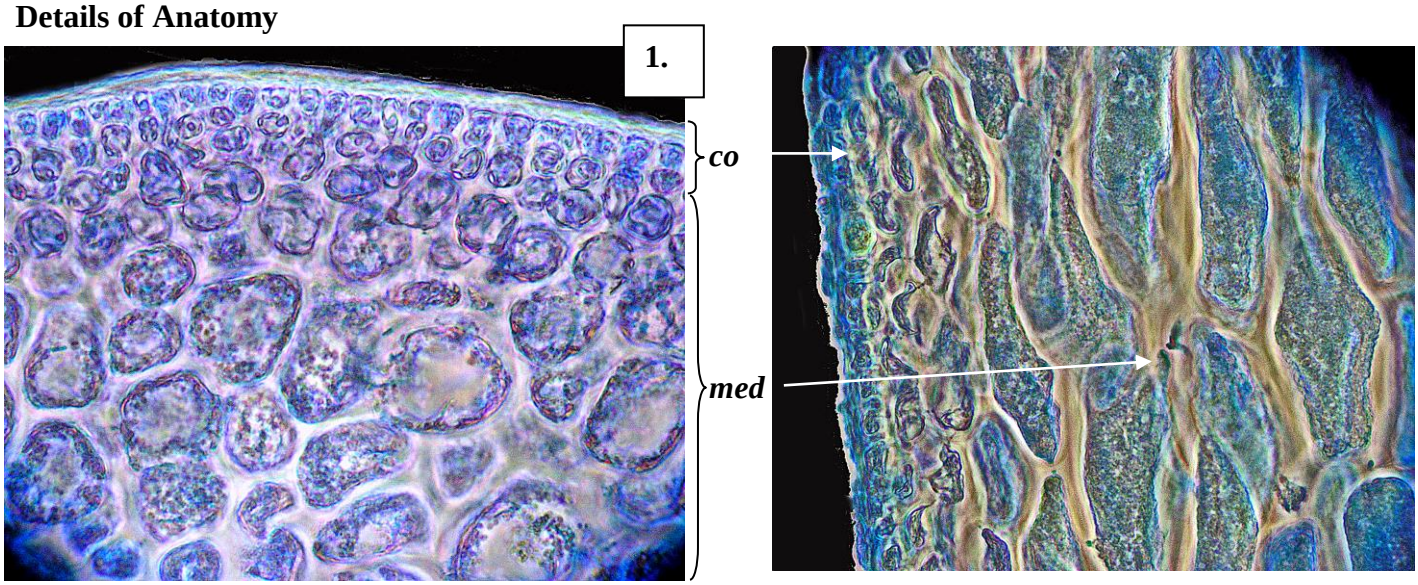
Special requirements cut sections and view microscopically to view

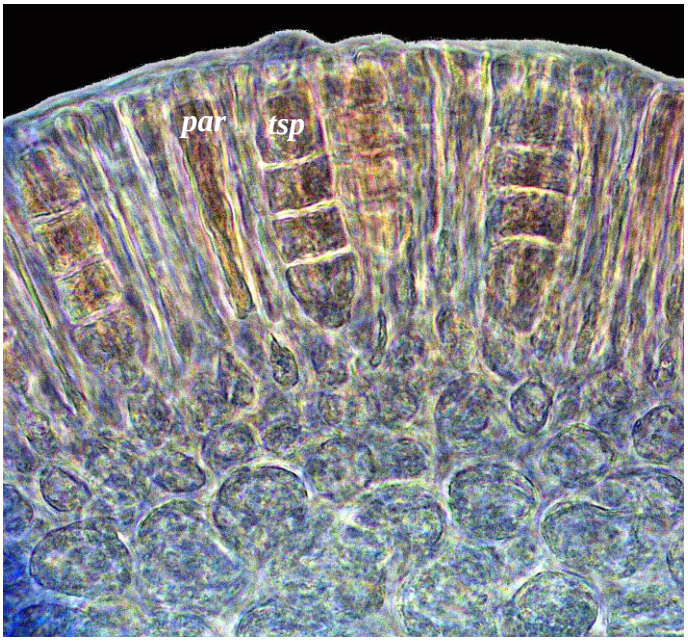
- in cross sections: central cores (medulla) of ***large cells***, decreasing in size to outer layers (cortex) of ***small cells***
- in lengthwise sections: characteristic ***elongate*** core cells
- in cross sections of swollen patches containing spores (nemathecium): short chains of cells (***paraphyses*** or hairs) separating cigar-shaped spore sacs of 4 spores in a line (***zonate***)

Similar Species *Trematocarpus concinnus*, but that species has narrower, cylindrical branches

Description in the Benthic Flora Part IIIA, pages 318-320

Details of Anatomy





2.

3.

Trematocarpus affinis, stained blue and viewed microscopically

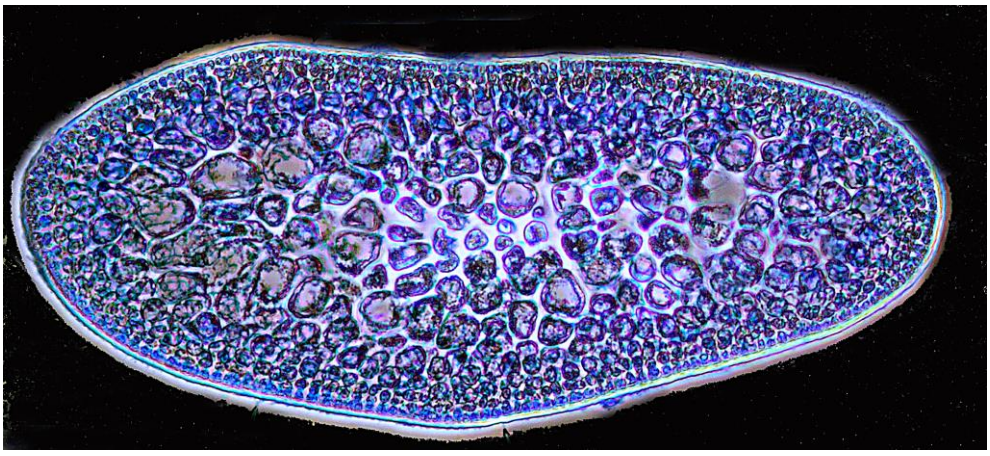
1. cross section of one side of a branch: central core (medulla, ***med***) of large cells grading to small cells of the outer layer (cortex, ***co***) (slide 1506)
2. cross section through a patch (nemathecium) of tetrasporangia (***t sp***) divided across (zonate) and separated by short hairs (paraphyses, ***par***) (slide 1506)
3. lengthwise section: ***elongate*** cells in the core (medullary, ***med***) layer, characteristic of the genus (slide 13023)

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

"Algae revealed", R N Baldock, State Herbarium S Australia, November 2005, revised August 2014

4.

5.



Trematocarpus affinis (J. Agardh) De Toni

4. from West I., S. Australia, (A31949), showing the narrow, flat, forked branches
5. cross section stained blue and viewed microscopically: characteristic flattened (compressed) shape, small core (medulla) of large cells, outer layer (cortex) of small cells