

Techniques needed and shape



Classification

\*Descriptive name

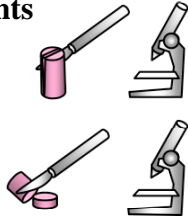
Features

Phylum: Rhodophyta; Order: Gigartinales; Family: Areschougiaceae  
thin mini red straps

1. plants are dark red, **gristly**, 100-200mm tall, with **several** main branches (axes) from the basal holdfast.
  2. branching occurs in **2 rows** from edges of narrow fronds
  3. side fronds have an **obvious** mid-rib, are pointed with a **narrow base**
- a SE Australian distribution: Kangaroo I., S Australia to Victoria and Tasmania

Occurrences

Special requirements



1. slice a window lengthwise along a branch to expose the single, **prominent** central thread producing **single**, branched threads from each of its cells
2. cut a cross section and view microscopically to find
  - the single, **prominent and large** central thread (*c fil*)
  - the central core (medulla, *med*) of a mix of **threads** and rhizoids
  - the outer layer (cortex, *co*) of **equal-sided** (parenchymatous) cells, larger on the inner side, 4-8 cells deep
2. if possible find the products of fertilisation in female plants (cystocarps)
  - in slight **swellings** in the core (medulla) of the small side branches
  - with a prominent **stalked fusion cell**
  - with a **loose** envelope of threads
3. sporangial plants have tetrasporangia
  - cigar-shaped and scattered in the outer (cortex) sporangia
  - divided across (zonately) into 4 sporangia

Usual Habitat

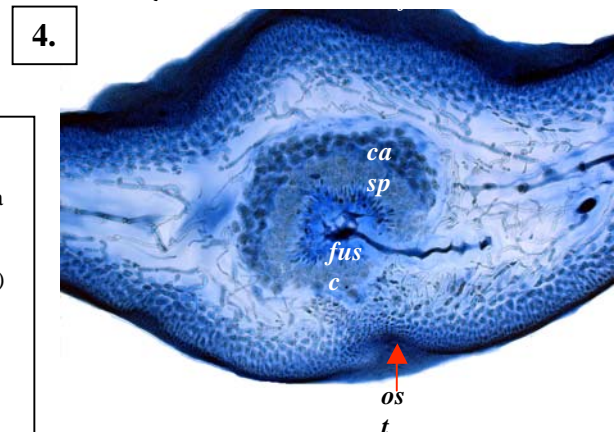
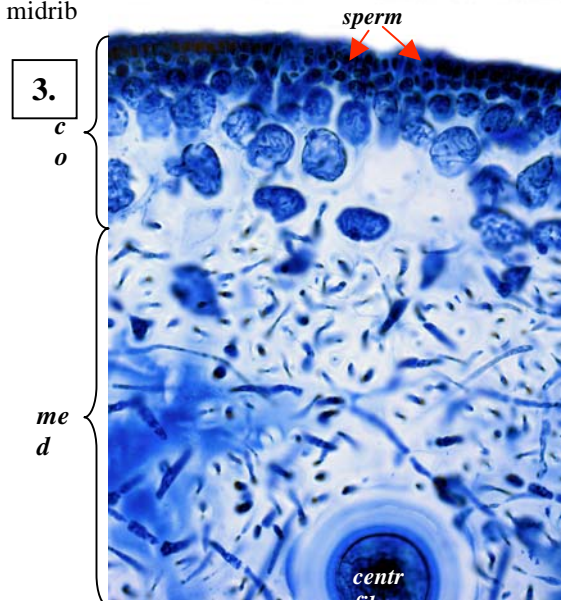
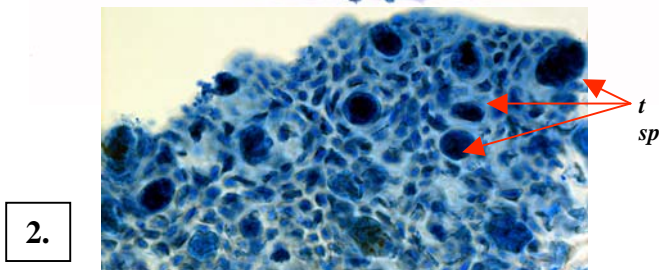
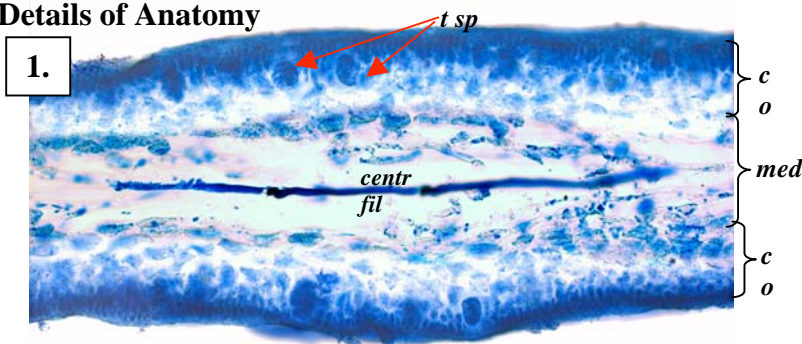
Similar Species

a deepwater species on rough water coasts

*Areschougia ligulata* but *A. stuartii* has a more western distribution, narrower fronds, several main axes and more prominent midrib

Description in the Benthic Flora Part IIIA, pages 357, 360-362

Details of Anatomy



*Areschougia ligulata* stained blue and viewed microscopically.

1. a partly lengthwise section of a sporangial plant showing the prominent central thread (*centr fil*), core of threads (medulla, *med*) and tetrasporangia (*t sp*) in the outer layer (cortex, *co*) (A585 slide 3875)
2. surface view of outermost cortex cells and tetrasporangia (A585 slide 3875)
3. a cross section of a male plant showing the large central thread, core (*med*) of threads and rhizoids, gradation of inner large to outer small cells of the cortex and surface clusters of spermatangia (*sperm*) (A61355 slide 12636)
4. a cross section through a cystocarp, with stalked fusion cell (*fus c*) short chains of carposporangia (*ca sp*) only a slight envelope of threads and an opening (ostiole, *ost*) (A18256 slide 38753)

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"Algae Revealed" R N Baldock, S Australian State Herbarium, March 2008



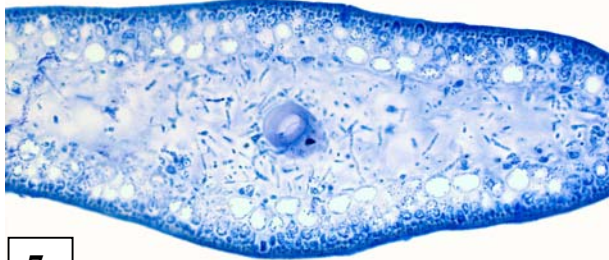
5.



6.

5, 6. Two views of a drift plant of *Areschougia stuartii* Harvey, (A42234), from Cape Lannes, Robe S Australia showing the many axes from the basal holdfast, side branches narrowing at the base (arrowed), and mid ribs visible throughout

7. a cross section of *Areschougia stuartii* stained blue and viewed microscopically showing the prominent central thread, core of threads and rhizoids and outer layer (cortex) of large and small equal-sided cells. (A33002 slide 12638)



7.

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