

Techniques needed and shape



Classification

Phylum: Rhodophyta; Order: Gigartinales; Family: Areschougiaceae

\*Descriptive name

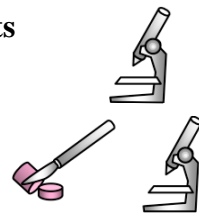
Features



1. plants are dark red, 50-150mm tall, with **narrow** almost linear segments 4-10mm, **pinched** at both ends
2. smaller branches are **in rings** of 2-5 from Point Sinclair, S Australia to Victoria

Occurrences

Special requirements



1. view the plant tips microscopically to find the **rings** of slim branches and focus in the centre of a segment to find the **central thread** diagnostic of the genus
2. cut cross sections of young and old segments and view microscopically
  - the **prominent** central thread
  - in **young** segments, find radiating **much-branched** threads crossing a central space arising in **pairs** from each cell of the central thread
  - in **old** segments, a broad core (medulla) filled with **rhizoids**
  - a “skin” layer of **small**, equal-sided cells
2. if possible find the products of fertilisation in female plants (cystocarps), cut a cross section and view microscopically to find
  - a mass of gonimoblast cells in the **central** core (medulla)
  - a **thin envelope** of threads
  - a **prominent** fusion cell and **stalk cell** connected to the central core of filaments
3. if possible, cut a cross section of a sporangial plant to find large, cigar-shaped tetrasporangia divided across (zonately) in the outer (cortex) layers

Usual Habitat

Similar Species

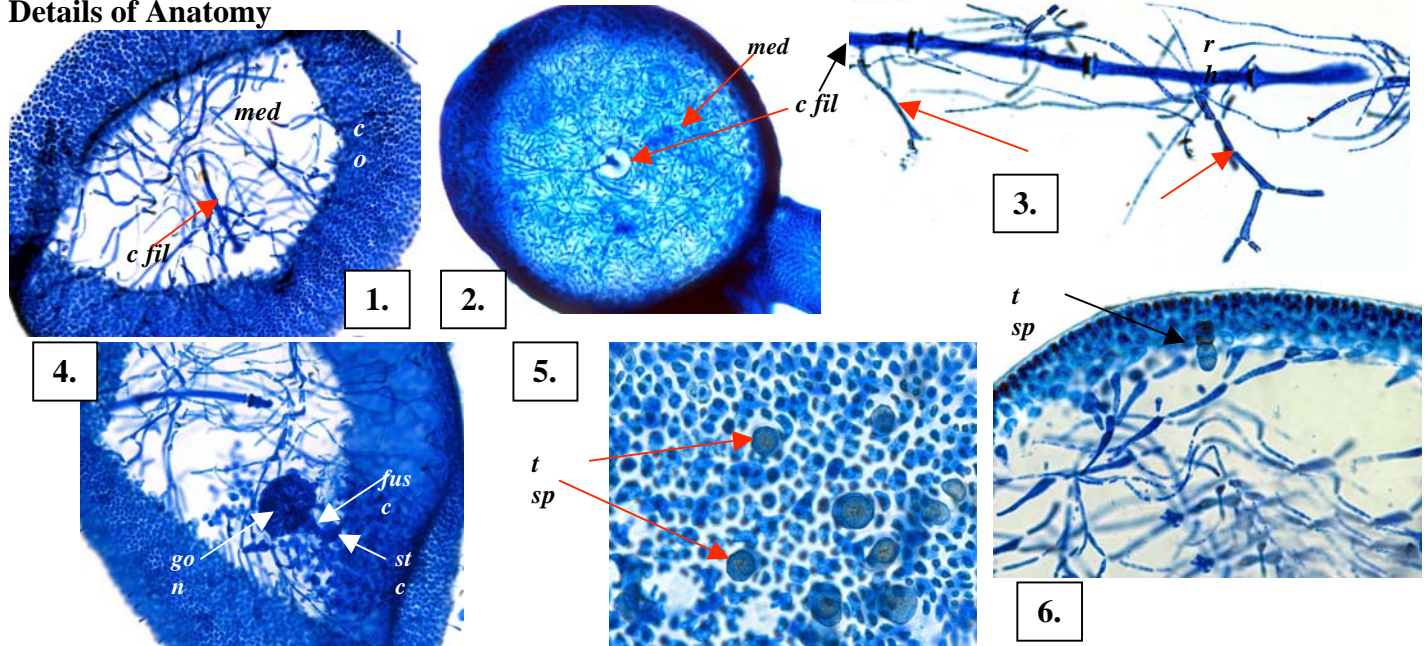


can be confused with thin *Areschougia* species requiring close inspection for the **rings** of branches, and microscopic **pairs** of radiating threads from each cell of a central thread

Description in the Benthic Flora

Part IIIA, pages 352-355

Details of Anatomy

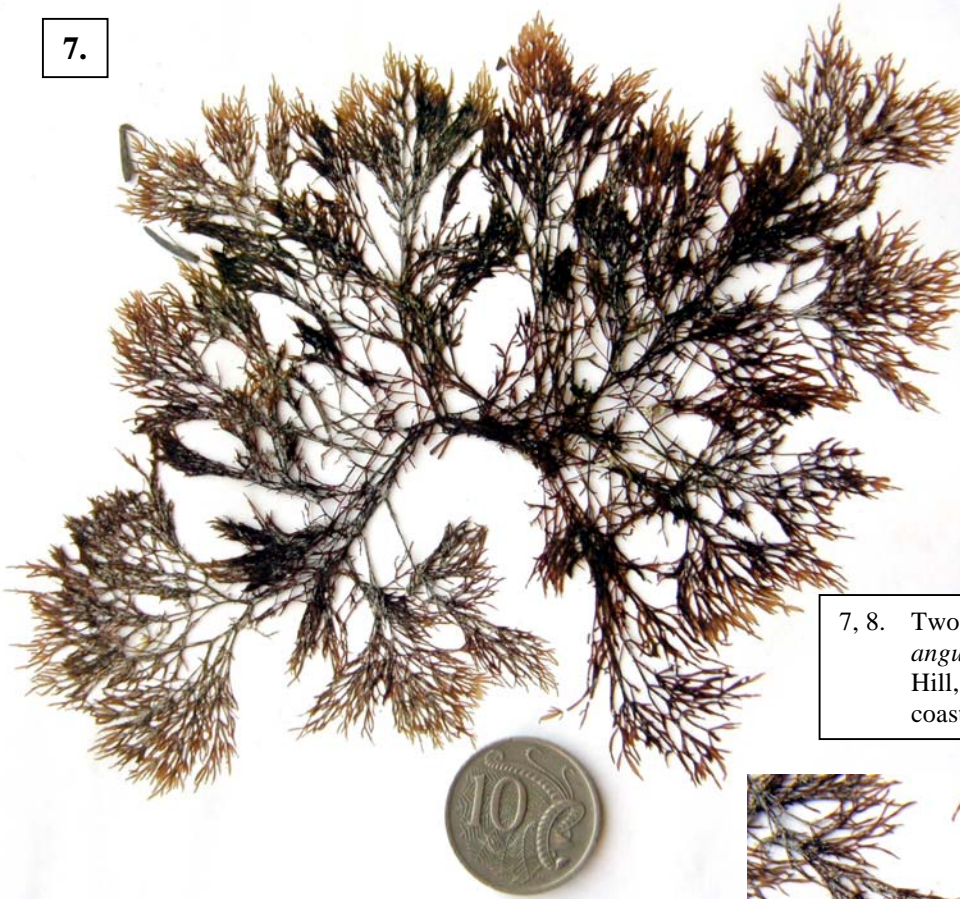


*Erythroclonium angustatum* (A35904) stained blue and viewed microscopically.

1. a cross section of a young segment (slightly tilted) showing the wide core (medulla, *med*) crossed by branched threads radiating from a central thread (*c fil*), and outer “skin” of small cells (cortex, *co*) (slide 3889)
2. cross section of an old segment with prominent central thread and core (medulla) packed with rhizoids (slide 3888)
3. a central thread extracted from the medulla of a segment viewed lengthwise, showing the radiating branched threads (arrowed) and a loose wrapping of rhizoids (*rh*) (slide 3887)
4. a cross section of a cystocarp, with mass of gonimoblast cells (*gon*), fusion cell (*fus c*) with its basal stalk cell (*st c*), lightly wrapped in medulla threads (slide 3891)
5. surface view of tetrasporangia (*t sp*) amongst cortical cells (slide 3893)
6. cross section of the outer part of a segment of a sporangial plant with a single zonately divided tetrasporangium (*t sp*) in the cortex (slide 3893)



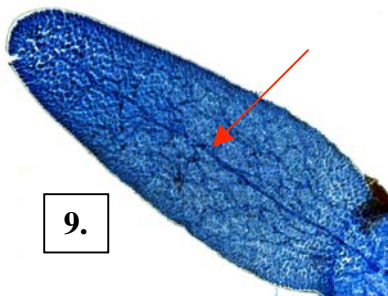
7.



7, 8. Two views of *Erythroclonium angustatum* (A66415) from Troubridge Hill, S Australia, 5m deep on an exposed coastline



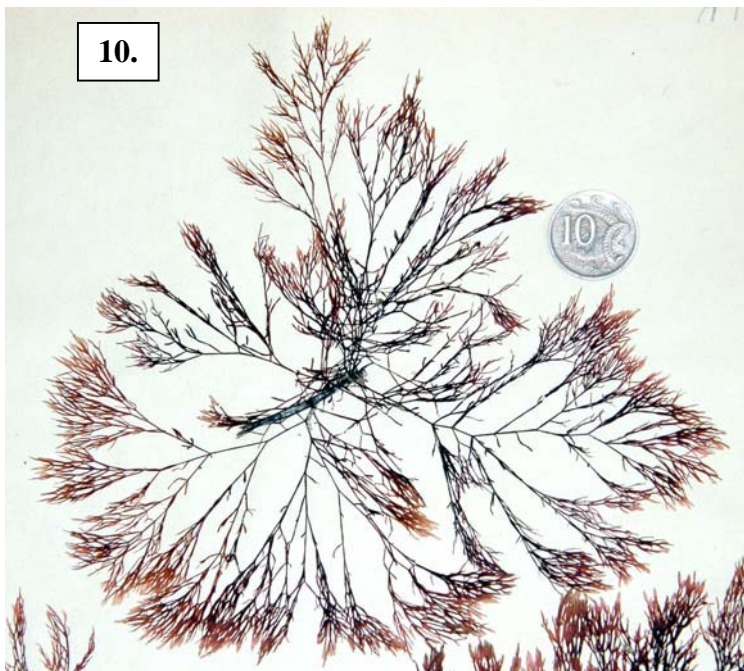
8.



9.

9. A segment of *Erythroclonium angustatum* stained blue and viewed microscopically to highlight the central thread (arrowed) (A35904 slide 3887)

10.



10, 11. Two views of a drift plant of *Erythroclonium angustatum* A62443 from Western Port, Victoria



11.