

Techniques needed and shape



**MACRO
PLANT**



Classification

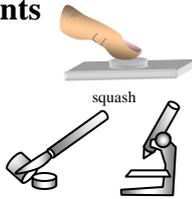
Phylum: Rhodophyta; Order: Gigartinales; Family: Kallymeniaceae
pinched-tips

***Descriptive name**

Features

plants dark red-brown, 40-120mm tall, consisting of *flat, forked* blades 2-4mm wide, characteristically *pinched* (constricted) at their bases when new sections are formed at branch tips. Mature female structures (cystocarps) form relatively massive swellings, *pinched* at their bases, on the surface of segments

Occurrences and usual habitat
Special requirements



only known from 19th century collections at Pt Phillip Heads, Victoria, and 15m deep off Cape Northumberland, S. Australia. Sporangial plants are unknown.

1. make a tissue squash of a blade and view microscopically to find:
4-5 layers of small, rounded outer (cortical) cells; wide core (medulla) layer of **scattered** threads; spidery (**stellate**) cells may be common in the medulla
2. if possible, find relatively **massive** female fertile swellings (cystocarp), cut cross sections and view microscopically to find thick wall; scattered, **rounded groups** of carposporangia

Similar Species

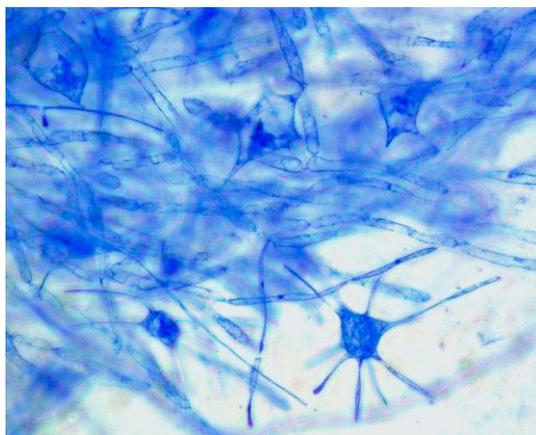
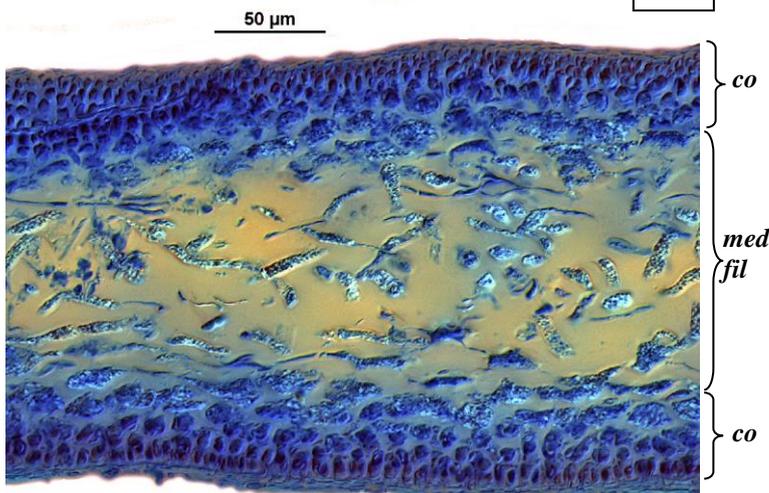
Cirrularcypus nanus, but in *Hormophora* chains of flat sections pinched basally occur and cystocarps are external swellings, not embedded in the branches.

Description in the Benthic Flora Part IIIA, pages 243-245

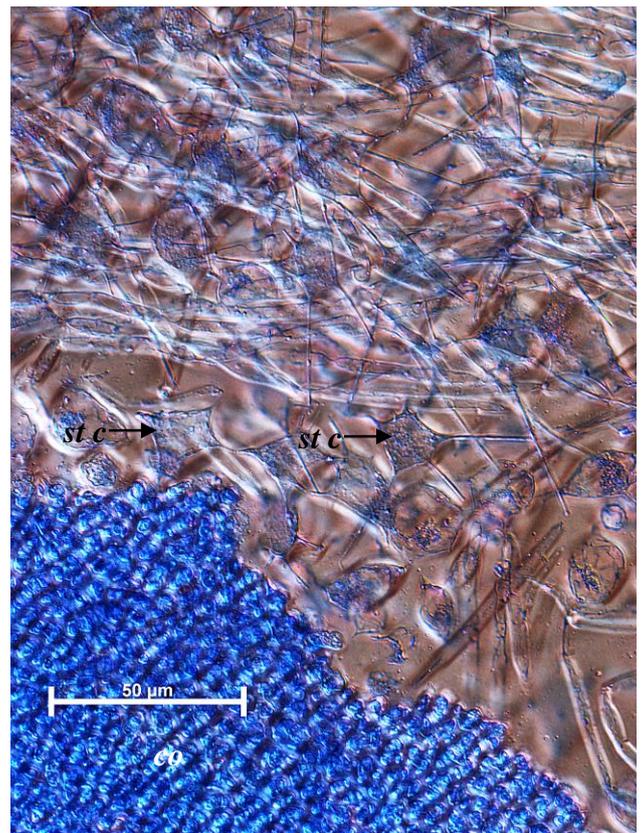
Details of Anatomy

1.

2.



3.



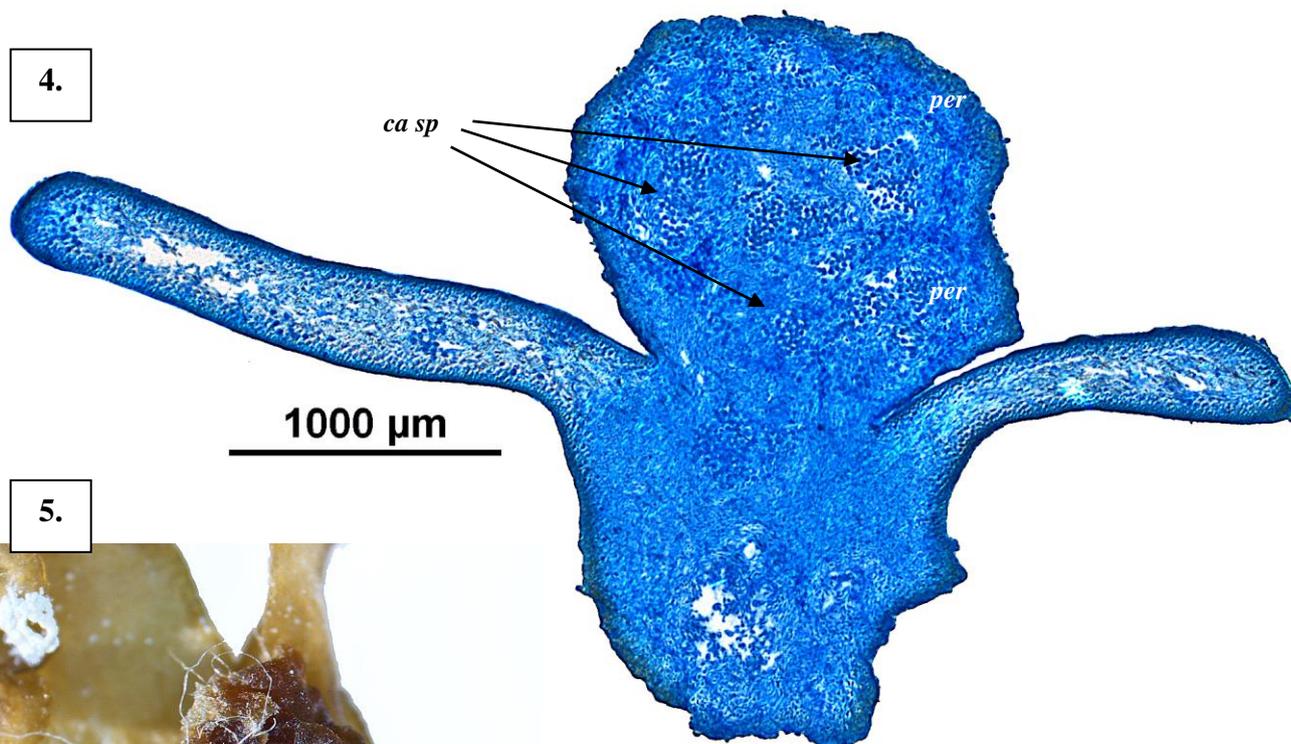
Hormophora australasica, stained blue and viewed microscopically:

1. cross section through part of a blade: outer layer of small cells (cortex, **co**), core (medulla) of scattered threads (**med fil**) (A70358 slide 3189)
2. tissue squash: mix of fine threads and stellate cells (**st c**) from the medulla; small cortex cells (**co**) (A49150 slide 11587)
3. detail of stellate cells amongst filaments (slide 11588)

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

“Algae revealed”, R N Baldock, State Herbarium S Australia, December 2005; additions and re-formatting April 2009, April 2014

4.



5.



6.



Hormophora australasica J. Agardh

4. cross section of a blade with relatively massive, emergent cystocarp: rounded masses of carposporangia (*ca sp*); cystocarp wall (pericarp, *per*) (slide 11650)
5. surface view of a pressed, bleached specimen: dark, crumpled, massive cystocarp protruding from a blade
6. plant 15m deep, off Cape Northumberland, S. Australia (A46592): characteristic pinching of flat branches (arrowed) occurs when new branches arise from branch tips

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