

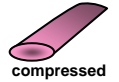
Carpopeltis elata
(Harvey) Schmitz

45.280

Techniques needed and shape



**MACRO
PLANT**



Classification

Phylum: Rhodophyta; Order: Gigartinales; Family: Halymeniaceae

flat antler weed

***Descriptive name**

Features



plants dark red-brown, 100-300mm long, **gristly**, with one to several denuded main branches (axes), side branching alternating, **flat branched**, **forked**, **narrow**, compressed about **1-2 mm** broad

Occurrences

Usual Habitat

in moderately shallow water on rock

Similar Species

Carpopeltis phyllophora, but that species extends to Tasmania, and has broader branches pinched at the base

Description in the Benthic Flora

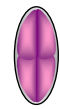
Part IIIA, pages 170-174

Special Requirements

cut cross sections and view microscopically to find

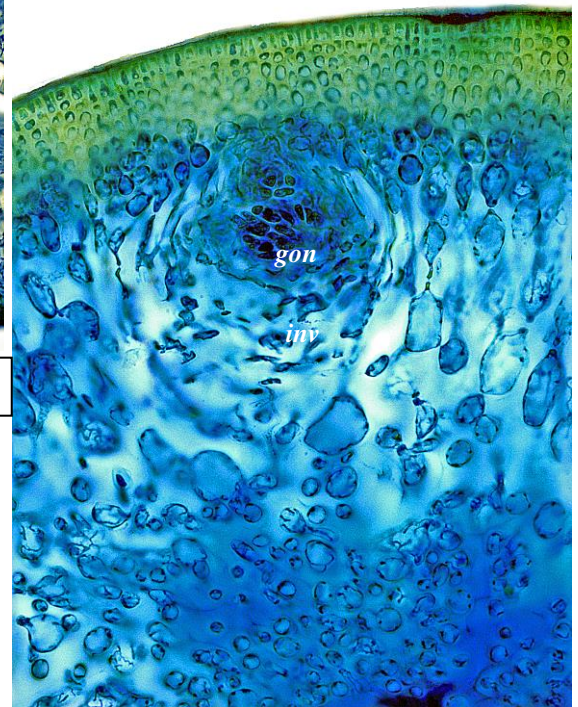
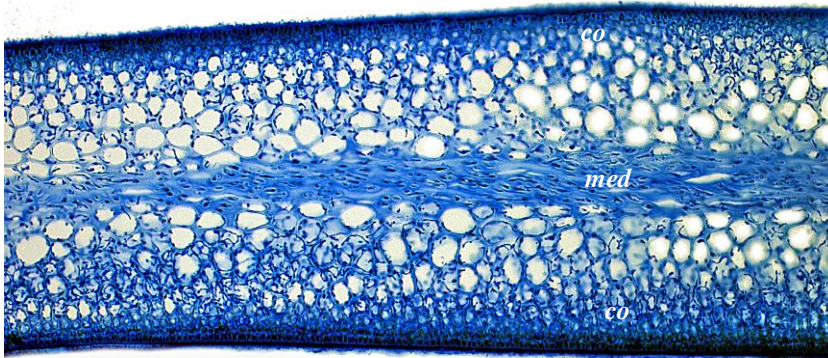


1. **narrow** cores (medulla) of **densely entwined** threads, **firm** outer layers (cortex) of equal-sided cells, inner ones large, outer small
2. in female plants with swollen ends of branches (cystocarps): at first, small, flask-shaped spaces (auxiliary cell ampullae) enveloped by threads, lying in the inner cortex; finally, each developing a dense mass of carposporangia inside, that escape through a small opening (ostiole)
3. in sporangial plants: patches (nemathecia) of spores in branch tips (not illustrated below); tetrasporangia elongate, divided in a cross (cruciate) pattern, lying between short threads (paraphyses) in the cortex



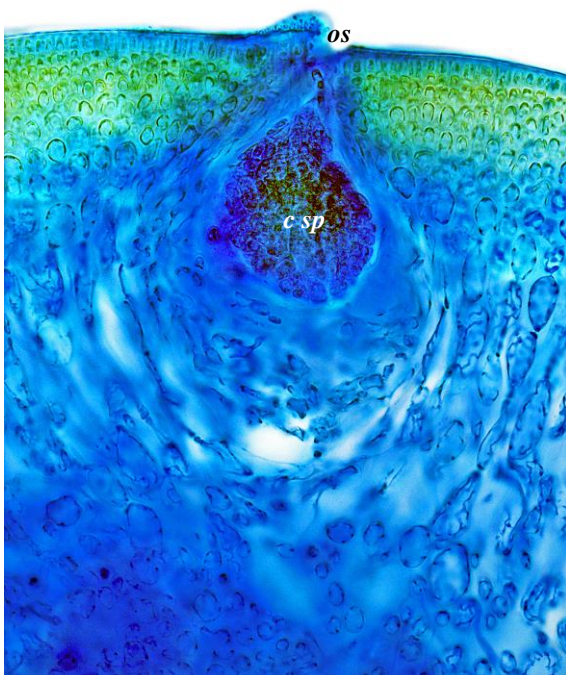
cruciate

Details of Anatomy



1. 2.

3.



Cross sections of *Carpopeltis elata* stained blue and viewed microscopically

1. part of a compressed branch: narrow core (medulla, **med**) of threads, outer layer (cortex, **co**) of inner large and outer small cells (slide 11782)
2. young cystocarp: envelope (involucre, **inv**) of threads, developing gonimoblast (**gon**) (slide 11783)
3. mature cystocarp lying in a flask-shaped space (ampulla) with mass of carpospores (**ca sp**) and narrow opening (ostiole, **os**) (slide 11783)



4.

5.



4, 5. *Carpopeltis elata* (Harvey)
Schmitz A50765, from Safety Bay,
W Australia: two magnifications

* Descriptive names are inventions to aid identification, and are not commonly used
“Algae revealed”, R N Baldock, State Herbarium S Australia, May 2008; edited May 2014