Amphiplexia racemosa
(J Agardh) Kraft

45.460

Techniques needed and shape



MACRO PLANT
tubular 
segmented 

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

***Descriptive name** —

Features

1. plants ***red*** 50-150mm tall, of ***stiff*** elongate sections (***segments***) 10-40mm long ***2-3mm*** wide, with rounded tops, ***bases pinched***
2. ***few*** and ***definite*** main branches arise from the base
3. active branches clusters are ***pyramid-shaped*** in outline

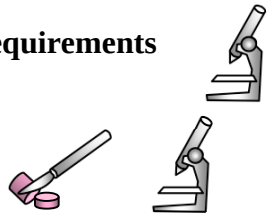
Occurrences Israelite Bay, W Australia to Elliston, S Australia

Usual Habitat possibly a restricted western distribution, 7-11m deep and on the seagrass *Amphibolis antarctica*

Similar Species *Amphiplexia hymenocladioides* which has less prominent, wider main branches and surface cells arranged in rings

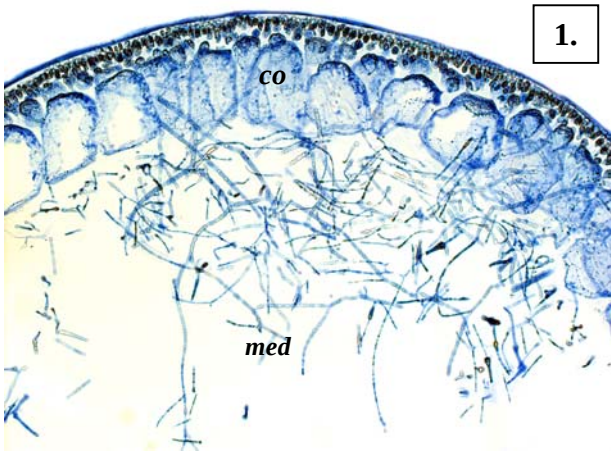
Description in the Benthic Flora Part IIIA, pages 370-373

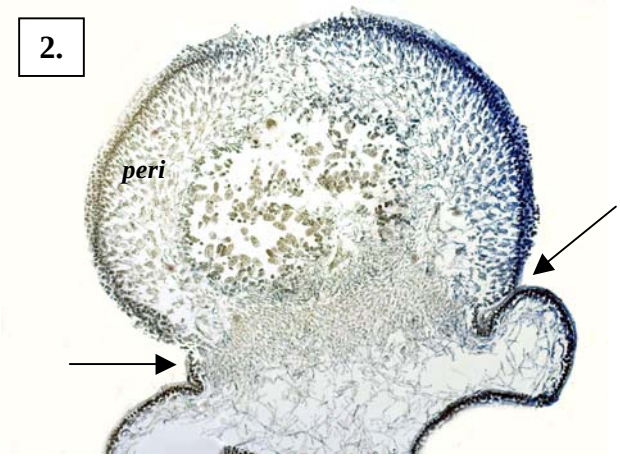
Special Requirements

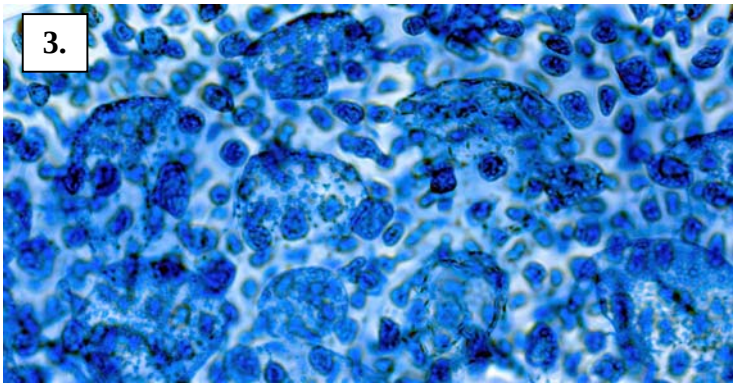


1. view the surface microscopically to see small cells ***scattered*** above large, deeper cells
2. slice a cross section of a segment and view microscopically to find a ***broad*** core (medulla) filled with ***loose*** threads and narrow outer (cortex) layer of a ***single*** row of large cells with ***small, evenly arranged*** surface cells
3. find the ball-shaped ***protuberant*** female cystocarps ***pinched*** at the base. Slice a cross section of a cystocarp and view microscopically to find the thick wall of cortex cells, mass of ***branched threads*** producing carposporangia at their tips. Find spermatangia in tiny surface clusters ***on the same plant*** (not imaged here)
4. cut a cross section of a sporangial plant and locate the small cigar-shaped tetrasporangia divided across (zonately) in the outer layer, often with 2 small cortical cells above (not imaged here)

Details of Anatomy





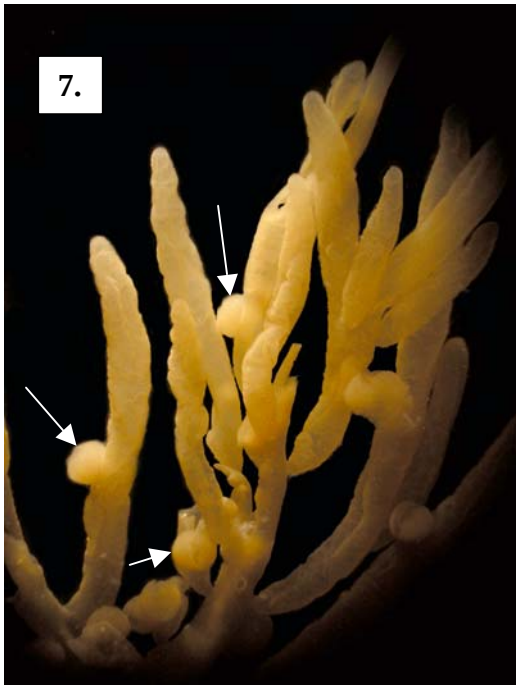


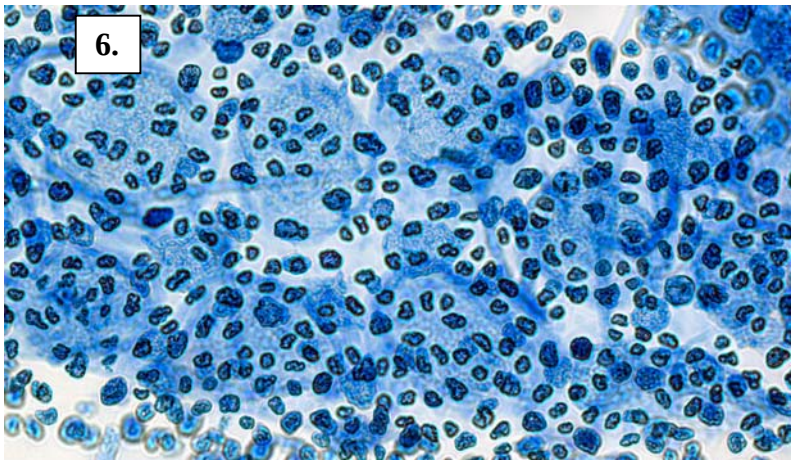
Amphiplexia racemosa stained blue and viewed microscopically, showing

1. a cross section of part of the the core (medulla, *med*) of dense threads, and outer layer (cortex, *co*) with a single inner ring of large cells and surface layers of small cells (A34965 slide 12684)
2. a cross section of a cystocarp pinched at the base (arrowed) with central cavity containing masses of threads, thick wall (pericarp, *peri*) of cortex cells, and carposporangia (A35852 slide 3798)
3. surface view of evenly scattered cells over large, deeper cortex cells (A34965 slide 12683)

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

4. *Amphiplexia racemosa* (J Agardh) Kraft, (A35852) from 10m deep at Elliston, S Australia, with a definite main branch (axis) (arrowed)
5. detail of a pyramid-shaped actively growing branch cluster of a specimen (A35034) from Elliston, S Australia





6. a surface view of *Amphiplexia racemosa* stained blue and viewed microscopically showing the evenly scattered small cells over large deeper cells (A34965 slide 12683)
7. a preserved (bleached and slightly wrinkled) specimen (A35852) showing protuberant cystocarps (arrowed) and the thin cylindrical shape of segments narrowed at the base, not always discernible in pressed specimens

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