

Betaphycus speciosum

(Sonder) Doty ex P C Silva
(previously *Eucheuma speciosa*)

45.440

Techniques needed and shape



**MACRO
PLANT**



flat-bladed



flat-branched

Classification

Phylum: Rhodophyta; Order: Gigartinales; Family: Areschougiaceae
(Solieriaceae in "Flora Base: flora of Western Australia")

*Descriptive name

Swan River jelly weed (named for the carrageenan extracted by early settlers)

Features

1. plants red-brown becoming almost black; gristly, coarse
2. main branches (axes) flat, furrowed on drying, branched irregularly from the edges, sometimes curled at tips. Short side branches numerous, mostly from edges of axes, cylindrical, spine-like, coming to a blunt point, sometimes with spreading forked ends

Occurrences

essentially a sub-tropical species, found in southern Australia at Esperance and near the Perth region, Western Australia, also, as far north as Broome (see <http://florabase.dpaw.wa.gov.au/>)

Usual Habitat

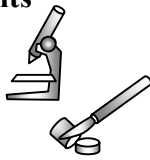
on rock in rough waters


Similar Species

Sarcothalia crassifolia is gristly, with clustered, fringing short branches but tetrasporangia are divided cross-wise (crucially) and that is a SE Australian species

Description in the Benthic Flora not included in volume IIIA

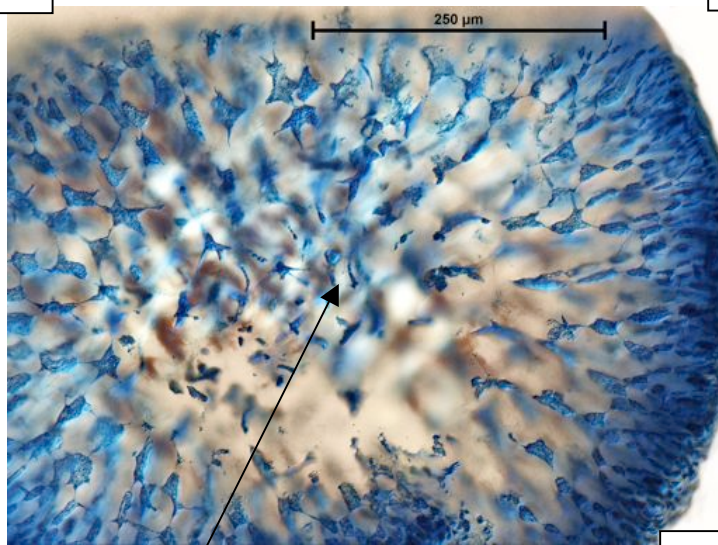
Special Requirements



1. cut cross sections of short spine-like branches and view microscopically to find:-
 - a core (medulla) of threads
 - a wide rind (cortex) of *star-shaped* cells extending into loose, forked threads spreading outward and ending in small, *rounded surface cells*
2. if possible find spore plants and cut cross sections of the spine-like side branches to view microscopically *scattered*, cigar-shaped tetrasporangia in the outer layers, divided across into a stack of 4 spores (*zonate*) 

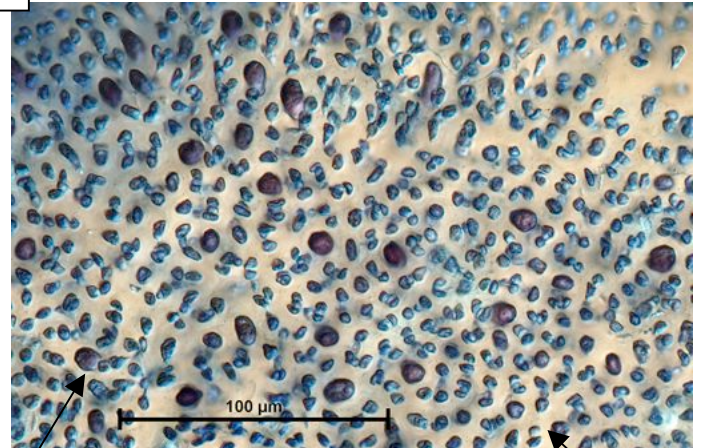
Details of Anatomy

1.



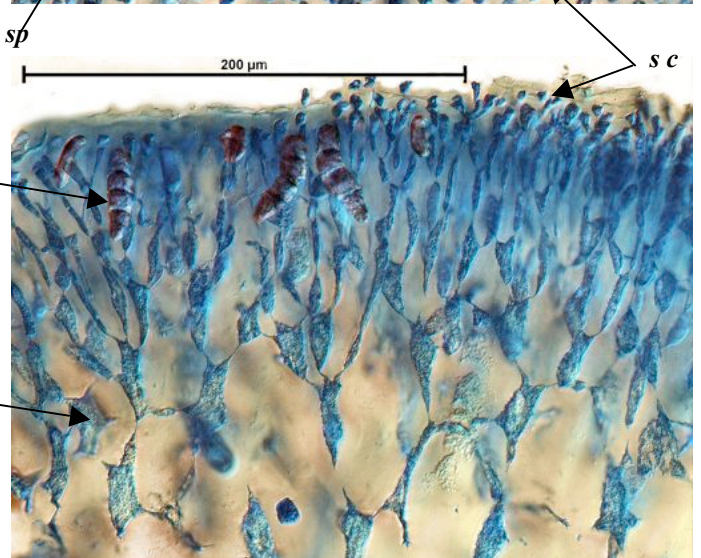
med

2.



t sp

3.



st c

Microscope views of *Betaphycus speciosum*

A98119 slide 21230:

1. cross section of a cylindrical side branch
- 2, 3. outer layers of a spore plant
2. surface view
3. in cross section

medulla, (*med*) of threads, star-shaped cells (*st c*) of the inner rind (cortex), branched chains ending in small surface cells (*s c*), sporangia (*t sp*) divided across (*zonate*)



Betaphycus speciosum (Sonder) Doty ex P C Silva
A98119:
whole plant from Nancy Bay, Rottneest I., W Australia



Betaphycus speciosum
(Sonder) Doty ex P C Silva
A98119:
detail of the dense, short,
cylindrical, forked side
branches at edges of a flat
main branch (axis) near its
tip

* Descriptive names are inventions to aid identification, and are not commonly used
"Algae Revealed", Robert Baldock, State Herbarium S Australia, August, 2013