

Cephalocystis furcellata

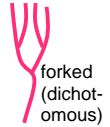
(J Agardh) Millar A, Saunders G, Strachan I & Kraft G

(as *Cordylecladia furcellata* J Agardh in the Benthic Flora)

45.660



MACRO
PLANT



Techniques needed and plant shape

Classification

*Descriptive name

Features

Occurrences

Usual Habitat

Special requirements



Phylum: Rhodophyta; Order: Rhodymeniales; Family: Rhodymeniaceae
red wireweed

1. plants dark brown-red, gristly 100-250mm tall, wiry
2. main branches cylindrical to slightly flattened, irregularly forked, about 1mm wide
3. tiny fertile egg-shaped clusters at branch tips, becoming hollow and shed when mature

West I., S Australia to Victoria and E coast Tasmania

shallow water to 24m deep, on rock

cut cross sections and view microscopically to find

- narrow band of small outer (cortical) cells, grading rapidly to large core (medulla) of large angular cells
- tetrasporangia mixed with elongate cells in the cortex of hollow, egg-shaped fertile spore structures
- mature female structures (cystocarps) protruding from the egg-shaped fertile structures, with a single opening (ostiole). Internally, masses of sporangia mixed with threads joined basally to a pyramid of feeding cells

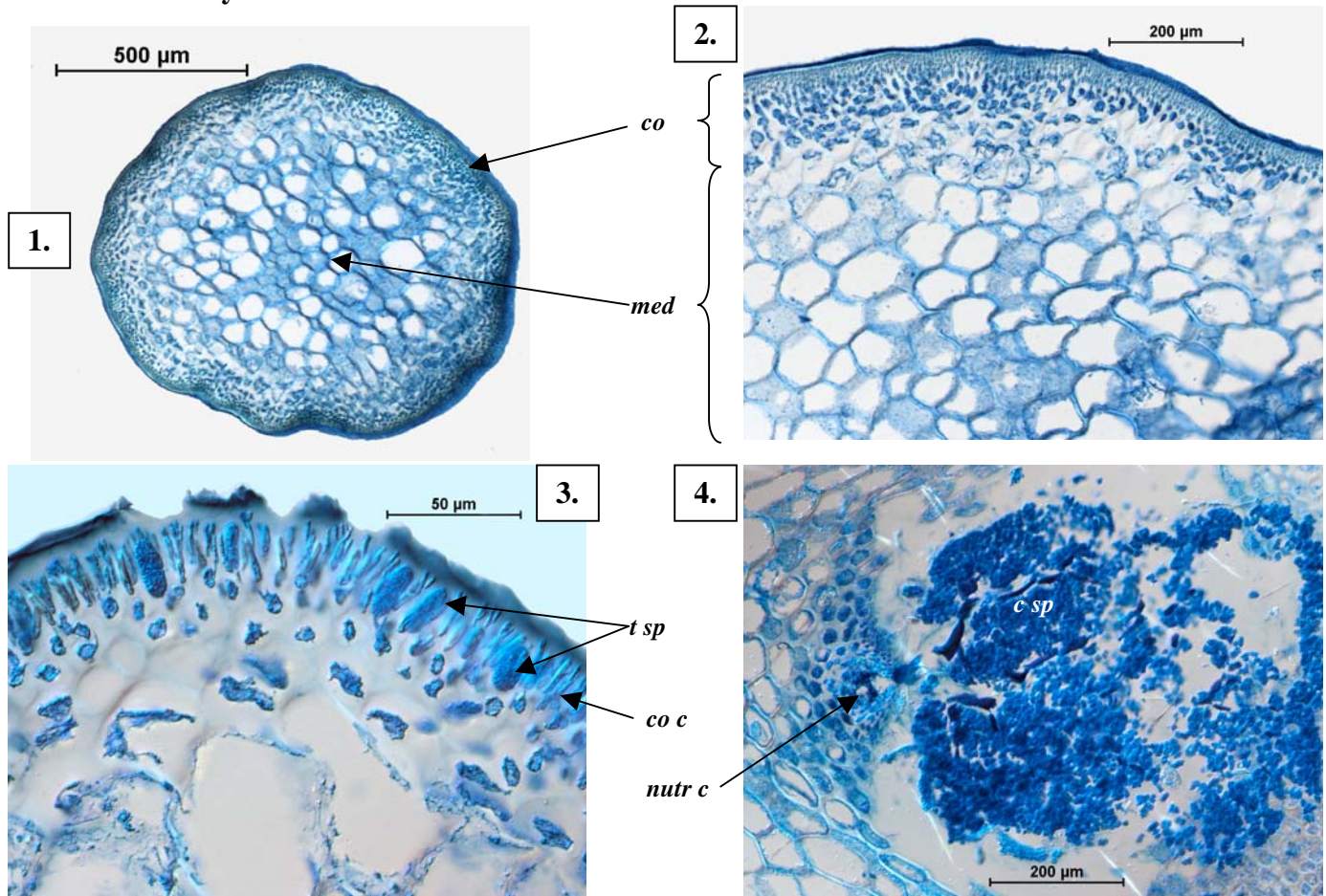
Similar Species

Description in the Benthic Flora



superficially like *Trematocarpus concinnus* and *Nizymenia furcata*

Part IIB, pages 49-51 (as *Cordylocladia*)

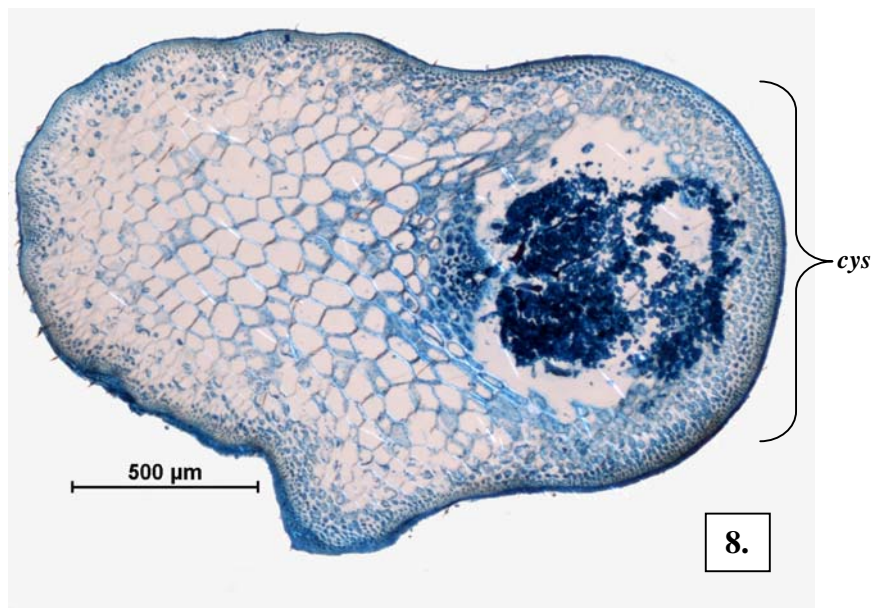
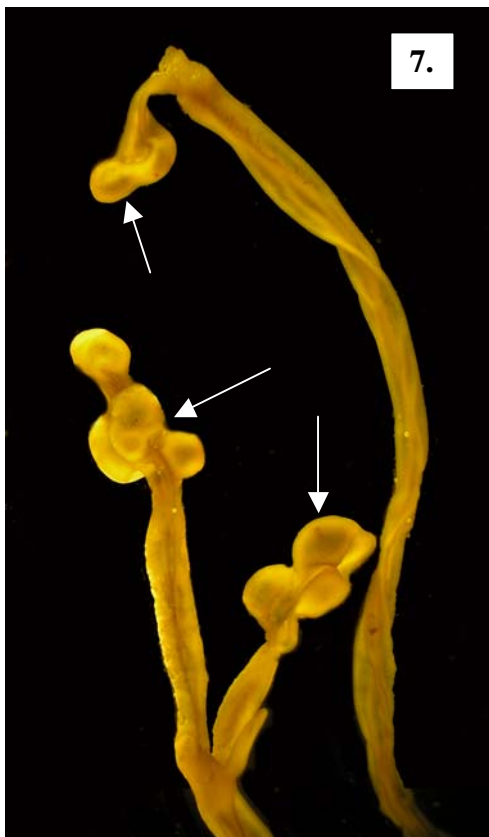
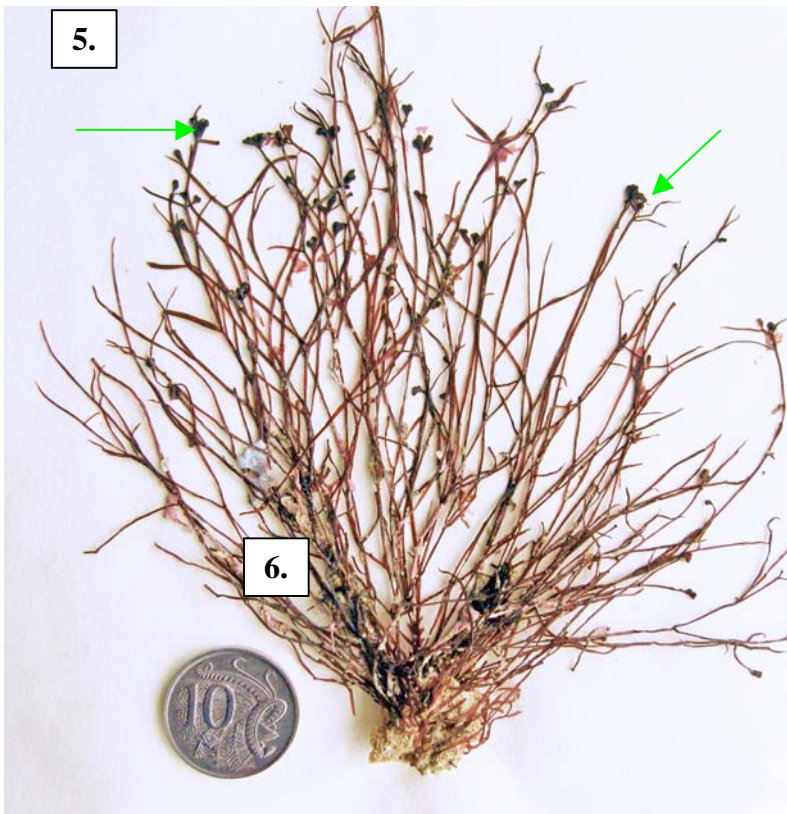
Details of Anatomy



Cross sections of *Cephalocystis furcellata* stained blue and viewed microscopically

- 1, 2 two magnifications showing narrow outer band (cortex, *co*) of small cells and broad core (medulla, *med*) of large, angular cells (A39609 slide 13411)
3. tetrasporangia (*t sp*) divided in a cross  or decussate pattern , mixed with elongate cortical cells (*co c*) from the tiny inflated fertile structures near branch tips (A42220 slide 13414)
4. detail of a mature female structure (cystocarp) showing masses of carposporangia (*c sp*) mixed with threads and basal nutritive tissue (*nutr c*) inside an inflated fertile structure near branch tips (A39609 slide 13413)

* Descriptive names are inventions to aid identification, and are not commonly used
"Algae Revealed", R N Baldock, S Australian State Herbarium October 2010



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5, 6 two magnifications of specimens from 3-8m deep at Nora Creina , S Australia (A39609), showing the cluster of tiny egg-shaped fertile side branches near tips (arrowed)

7. preserved, bleached tips somewhat shrunken, showing fertile structures (A57692)

8. cross section through a female fertile structure with a protuberant cystocarp (*cys*) (A39609 slide 13413)

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