Callipsygma wilsonis
J. Agardh

50.640

Techniques needed, and shape

Classification Phylum: Chlorophyta; Order: Caulerpales; Family: Udoteaceae

***Descriptive name** green trees

Features

1. plants are green, tree-like, 100-350mm tall, with a stout trunk and "canopy" of green threads branched in ***one flat surface***
2. threads superficially appear to be chains of cells but see microscope evidence below
3. lower branches are covered in ***bead-like chains*** of cells

Variations the upper "canopy" probably denudes then grows again seasonally

Special requirements

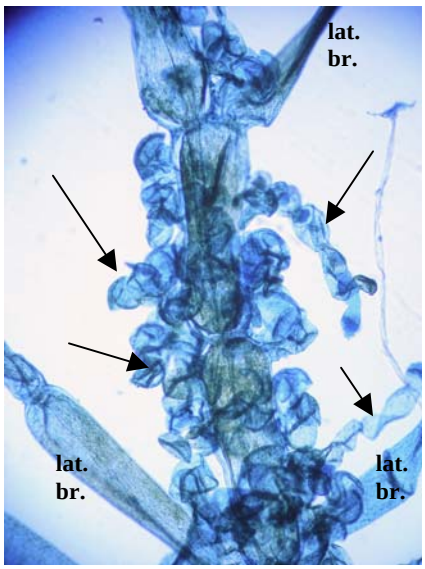
1. view the "canopy" threads where ***ingrowing walls*** practically divide them into chains of cells, but ***cytoplasmic strands perforate the end walls*** making the plant coenocytic and a member of the Udoteaceae Family.
2. view the lower branches, covered in ***bead-like chains*** of cells
3 note that the lack of cellulose in cell walls also places this species in the Family Udoteaceae

Usual Habitat in shaded rock platform pools to 10m deep, from Kangaroo I., S. Australia, Tasmania and Victoria

Similar Species upper parts are superficially like the multicellular threads of the Cladophoraceae, but the life history, cell wall composition and trunk-like basal parts are different in *Callipsygma*

Description in the Benthic Flora Part I, pages 247, 249, 250

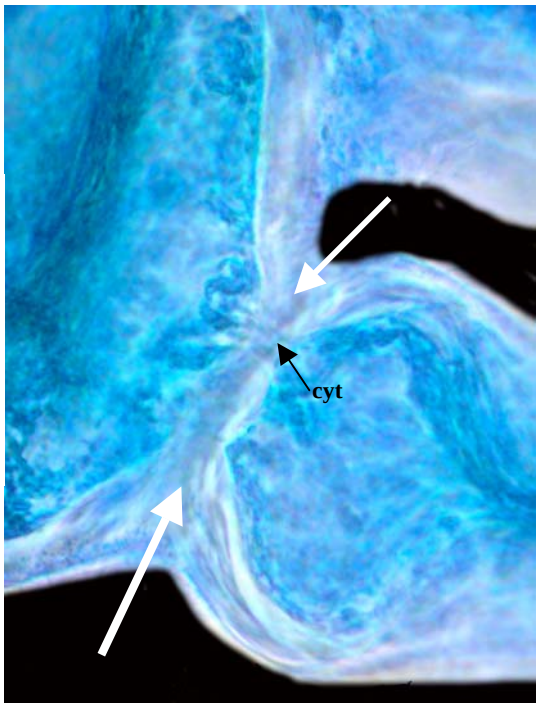
Details of Anatomy



A "canopy" thread, stained with aniline blue, showing the normal thread-like branching in one flat surface (**lat. br.**) and unusual chains of cells (arrowed) at the base 1466

Detail of the ingrowing cell wall (white arrows) near the fork of a filament, showing the thread of cytoplasm (**cyt**) that makes the whole plant a single cell (coenocytic)

1466



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

Prepared June 2005

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