Cirrulicarpus nanus
(J Agardh) Womersley

45.320

Techniques needed and shape

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

***Descriptive name** flat red forks

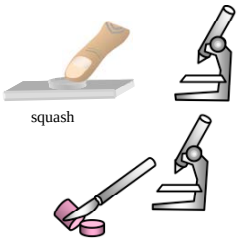
Features

1. plants are dark red, 50-150mm tall, flat-branched with ***rounded tips***
2. branches are ***firm*** in texture, about 10mm wide, irregularly forked, often slightly ***pinched*** at the bases, sometimes with irregular edges

Occurrences West Coast, S Australia to Victoria

Usual Habitat from shallow to very deep water (48m) often on rough water coasts

Special requirements



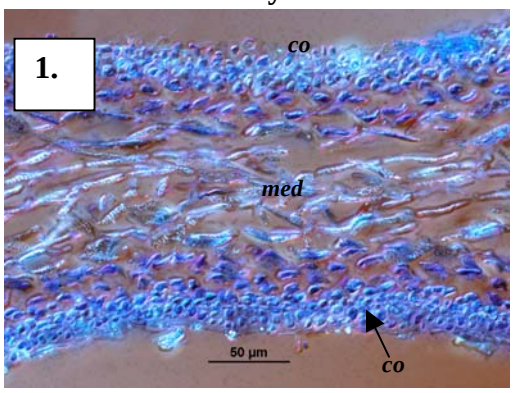
1. make squashes of tissue of different plants under the microscope to see
   - a network of branching threads in a broad and loosely-packed core (medulla) with some darkly staining spidery ***(stellate***) cells
   - outermost (cortex) parts of 4-6 layers of small cells
   - young, female structures (carpogonial branch systems, *cbs*) consisting of 2-5 ***club-shaped*** cells with dense contents found in inner parts of the cortex
   - ***scattered*** tetrasporangia with ***sloping*** (oblique) divisions (a feature used to diagnose this genus)
2. if possible, cut a cross section through the ***large*** mature female structures (cystocarps) containing ***patches*** of carposporangia ***separated*** by threads
3. if possible find sporangiate plants and view cigar-shaped

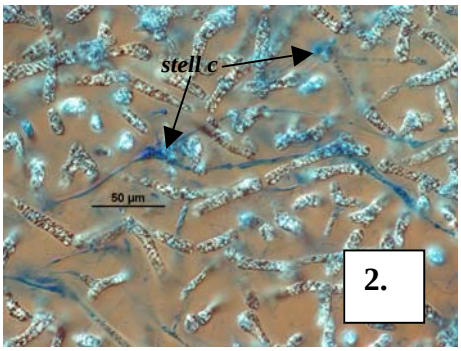
Similar Species 

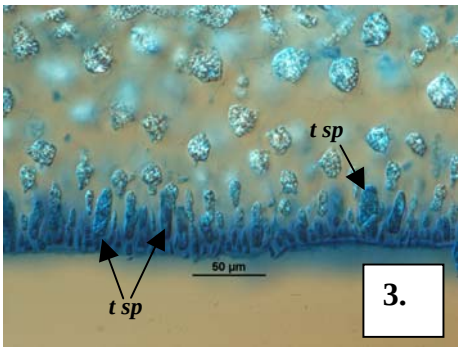
fertile plants of *Cirrulicarpus* can be recognised by their large cystocarps. Sterile plants can be confused with members of the Halymeniaceae

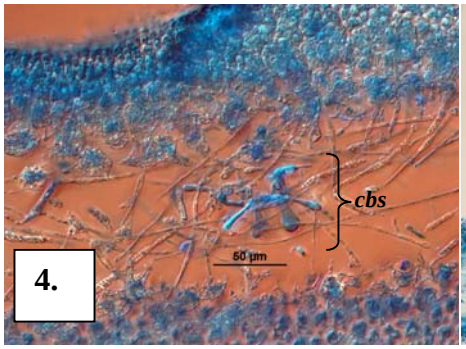
Description in the Benthic Flora Part IIIA, pages 241-244

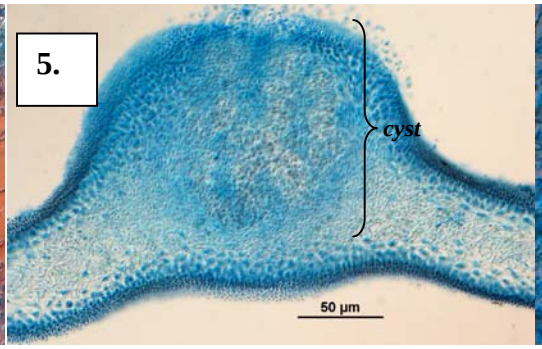
Details of Anatomy

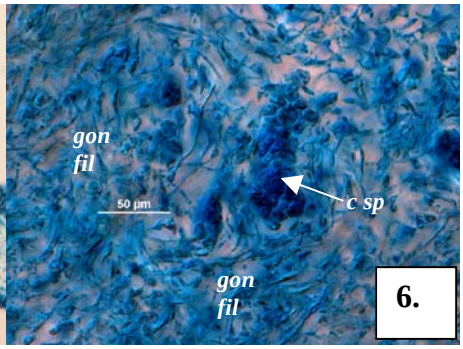












Cirrulicarpus nanus stained blue and viewed microscopically

1. a cross section with rows of outer cells (cortex, *co*) and core of threads (medulla, *med*) (A18542 slide 2921)
2. a tissue squash showing threads and stellate cells (*stell c*) of the core (medulla) (A42423 slide 11820)
3. part of a cross section of the cortex with tetrasporangia (*t sp*) showing sloping (***oblique***) divisions (A42423 slide 11820)
4. a cross section of blade with a young female structure (carpogonial branch system, *cbs*) with several club-shaped cells and thinner ones (probably carpogonia) (A68388 slide 18790)
5. a cross section of a mature female structure (cystocarp, *cyst*) showing the ***large size*** (A68388 slide 18790)
6. details of a cystocarp showing one of many clusters of carposporangia (*c sp*) encircled by threads (gonimoblast filaments, *gon fil*) (A63189 slide 13799)

Descriptive names are inventions to aid identification, and are not commonly used.
Prepared April 2009

7, 8. Different magnifications of a specimen of *Cirrulicarpus nanus* (J Agardh) Womersley from 50m deep at Pearson I., S Australia, showing the rounded tips and slight pinching at branch forks

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Prepared April 2009