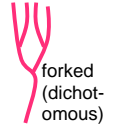




filament

MICRO
PLANT



Techniques needed and plant shape

Classification

*Descriptive name

Features

Special requirements

Phylum: Rhodophyta; Order: Ceramiales; Family: Dasyaceae

fine forked red threads

plants red-brown, 30–100mm tall, with slender branches and delicate tufts
view microscopically to find:



- main branches (axes) with **central thread** of naked cells flanked by 5 (pericentral) cells, weak coating (cortication) of threads (rhizoids) on oldest parts delicate, forked (dichotomous) branches (pseudo-laterals) of naked, **elongate** cells about **every 2 cells** along main branches
- **egg-shaped** cystocarps the product of fertilisation with **lines of cells** forming a wall, fusion cell inside cystocarps with terminal, **club-shaped** carposporangia
- **lance-shaped** tetrasporangial structures (stichidia) in lower parts of pseudo-laterals on a 2-celled stalk (pedicel) with tetrahedrally divided spores in rings mainly of 6 with box-shaped lid (cover) cells



Occurrences

Usual Habitat

Similar Species

only from American River Inlet, Kangaroo I., S Australia

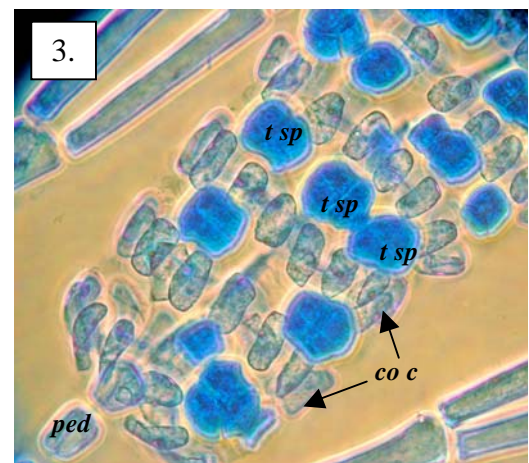
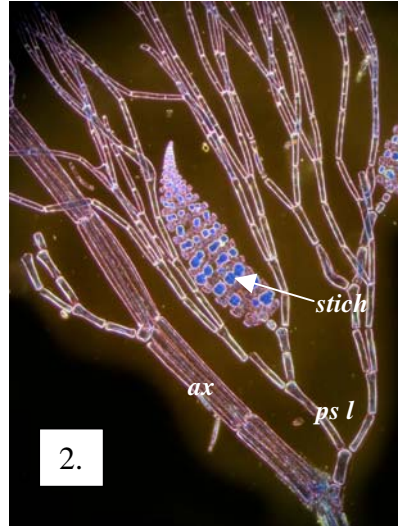
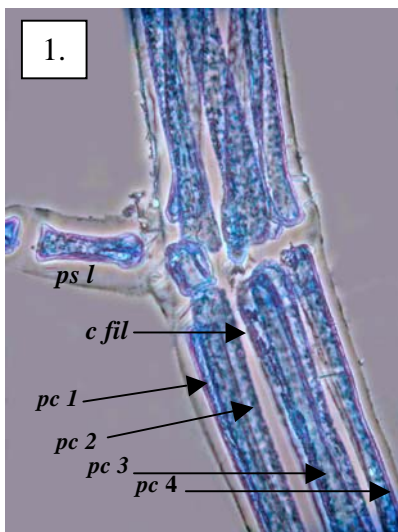
2-3m deep in a calm water inlet

many filamentous Ceramiales species, but unique in the naked branches, stichidia with rings of 6 tetrasporangia and terminal, club-shaped carposporangia

Description in the Benthic Flora

Part IIIC, pages 472-474

Details of Anatomy



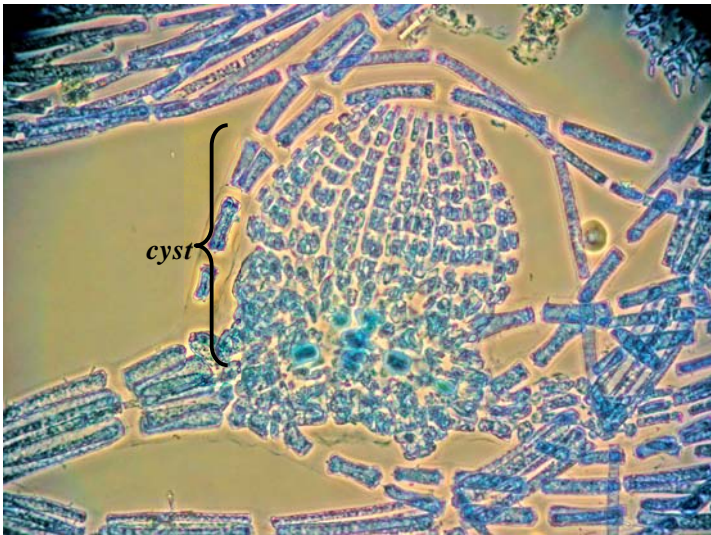
Dasya tenuis A42400 stained blue and viewed microscopically

1. four of the 5 cells (pericentrals, *pc1,2,3,4*) flanking a central filament cell (*c fil*, partly obscured) and the origin of a side branch (pseudo lateral, *ps l*) (slide 4360)
- 2, 3. tetrasporangial structures (stichidia, *stich*) at different magnifications, showing (axes, *ax*), pseudo laterals (*ps l*), tetrahedrally divided tetrasporangia (*t sp*), stalk (pedicel, *ped*) and cover cells (*co c*) (slide 4352)



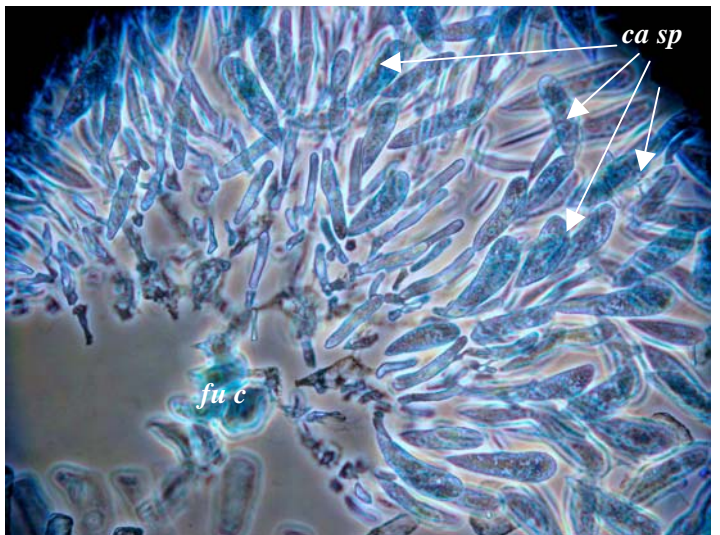
4.

5.



cyst

6.



ca sp
fu c

4. *Dasya tenuis* Parsons & Womersley A42417, from American River Inlet, Kangaroo I. S Australia.
 5, 6. cystocarps (*cyst*) the products of fertilisation (A42400 slide 4360) stained blue and viewed microscopically at different magnifications showing rows of cells in the wall (pericarp), and a fusion cell (*fu c*) with club-shaped carposporangia (*ca sp*) at the end of branches, extracted from inside a cystocarp

* Descriptive names are inventions to aid identification, and are not commonly used
 "Algae Revealed" R N Baldock, S Australian State Herbarium, February 2007