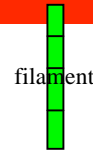


Techniques needed and plant shape



MACRO
PLANT



Classification

Phylum: Rhodophyta; Order: Ceramiales; Family: Dasyaceae

*Descriptive name

red flexuous tufts

Features



plants red-brown, about 200mm tall, with obvious main branches (axes) and side branches with dense, delicate tufts

Special requirements



view microscopically to find:



- **smooth** main branches (axes) branching **radially** several times, heavily clothed (corticated) by closely adherent **rhizoids** almost to the tips, **dense** tufts (pseudo laterals) of **elongate** cells branched at the **base**, **absence** of hair-like threads (adventitious monosiphonous filaments)
- cut cross sections and view in young branches **5** large flanking (pericentral) cells encircling a **small** central thread, in old branches **numerous** rhizoids **between** the pericentral cells
- find **lance-shaped** tetrasporangial structures (stichidia) in lower parts of pseudo-lateral with tetrahedrally divided spores in rings of 4(-5)

Occurrences

Georgetown, Tasmania, Port Phillip, Victoria, possibly Tiparra Reef, S. Australia

Usual Habitat

possibly on rocks, 10-12m deep

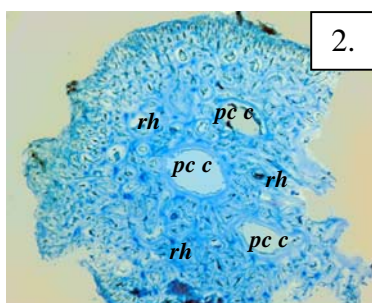
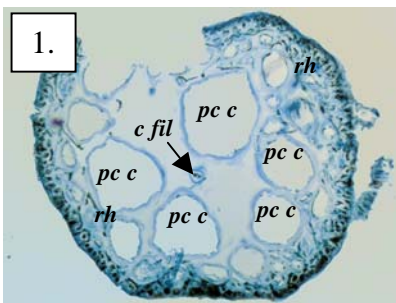
Similar Species

other *Dasya* spp with radial branching, thick rhizoidal cortication and dense pseudo-lateral tufts, e.g. *D. crinita*, but that species has thicker, shorter stichidia and pseudo-lateral cells

Description in the Benthic Flora

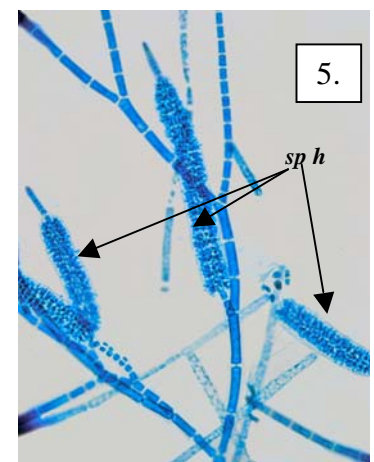
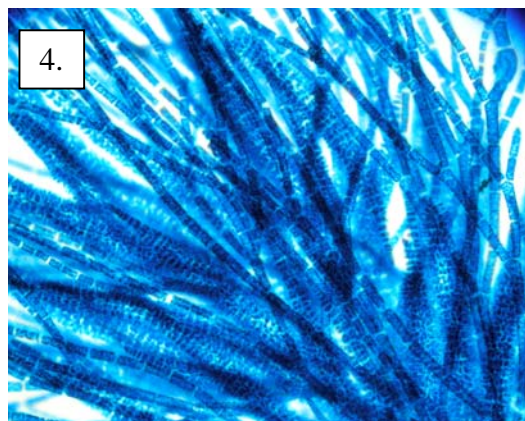
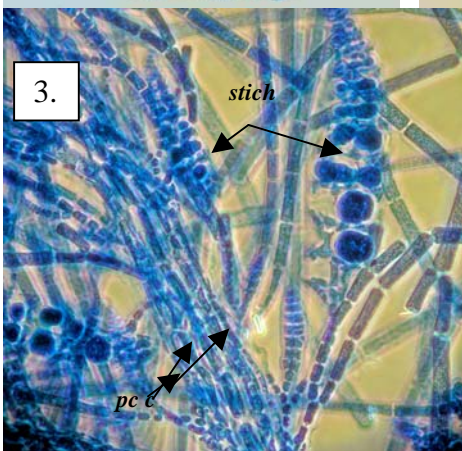
Part IIIC, pages 457-459

Details of Anatomy



Cross sections of *Dasya hapalathrix* (A56444 slide 917015) stained blue and viewed microscopically:

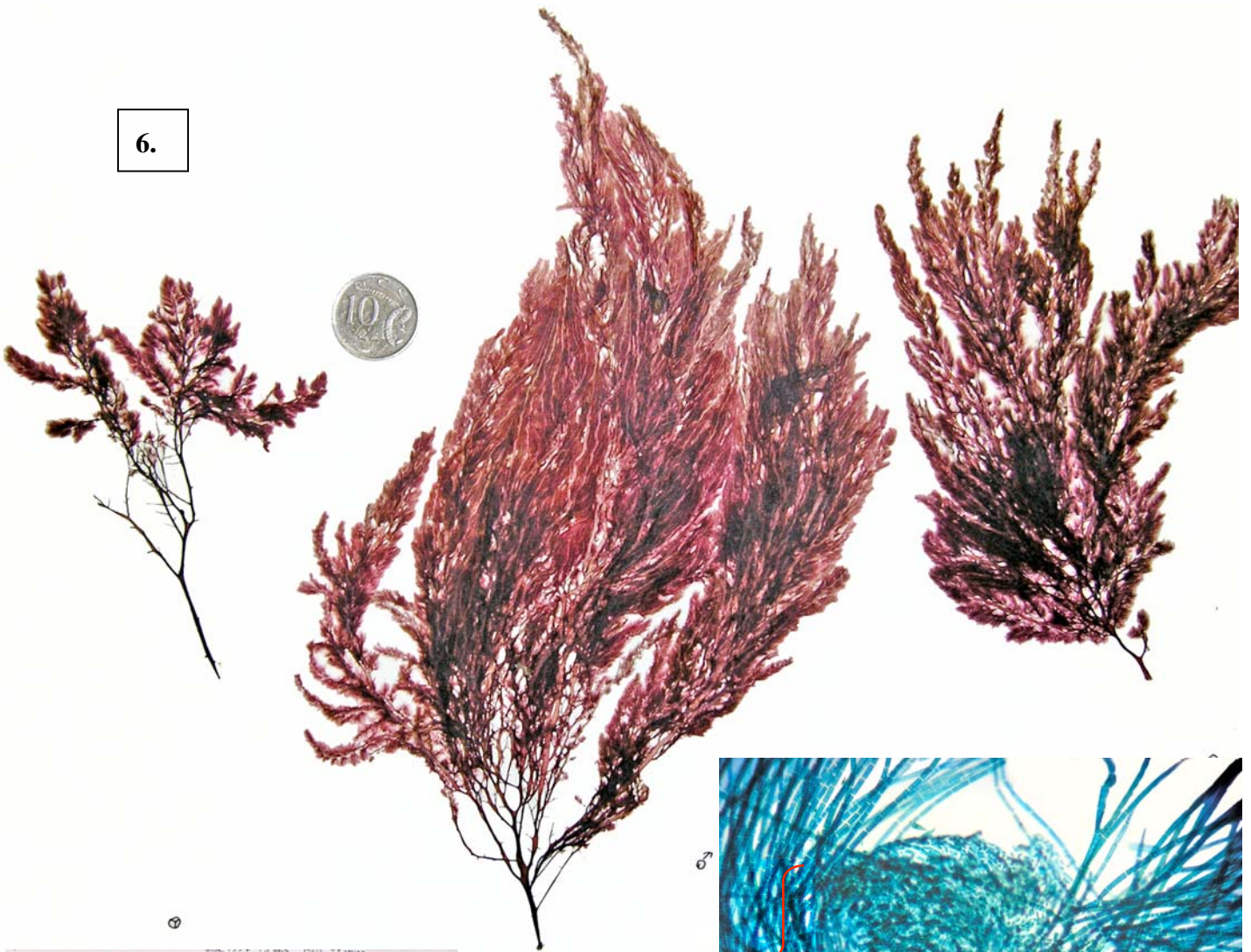
1. young branch with central thread (*c fil*); 5 flanking cells (pericentral cells, *pc c*), other large cells and intermingled rhizoids (*rh*)
2. older branch with pericentral cells still visible but separated by numerous rhizoids



- 3-5. *Dasya hapalathrix* A56444 stained blue and viewed microscopically
3. stichidia (*stich*) and young side branch with flanking (pericentral cells, *pc c*) visible in surface view (slide 9105)
 - 4, 5. male clusters (spermatangial heads, *sp h*) on lower pseudo-lateral branches with a short thread at tips (slide 9107)

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

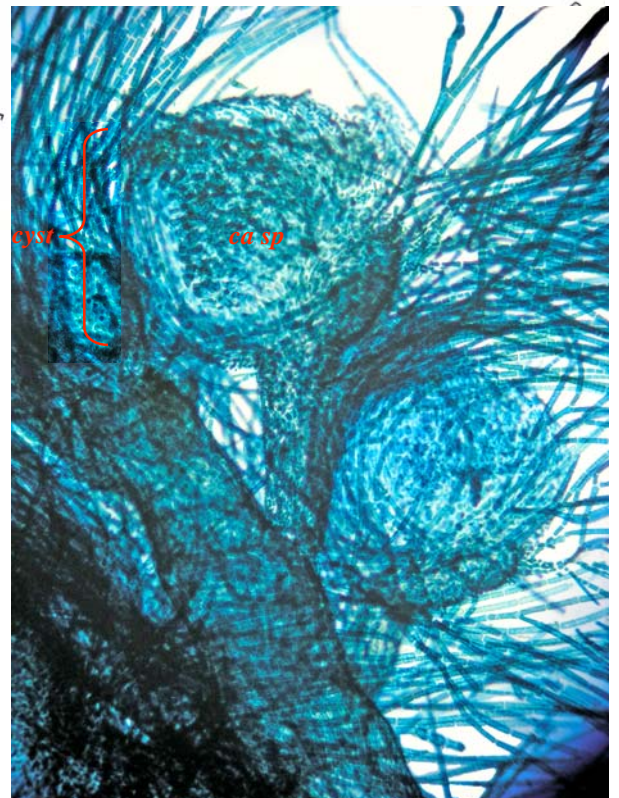
6.



7.



8.



Dasya hapalathrix Harvey

- 6. A56444 from Tiparra Reef, S. Australia, 10-12m deep
- 7. A18293 from the River Tamar, Tasmania – Harvey's isotype
- 8. specimen stained blue and viewed microscopically to show urn-shaped products of fertilisation (cystocarps, *cyst*) with sporangial masses (carposporangia, *ca sp*) inside (A56444 slide 9106)

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