Dasya hapalathrix Harvey

A SPECIES WITH FEW RECORDS

45.860




MACRO PLANT


Techniques needed and plant shape

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)

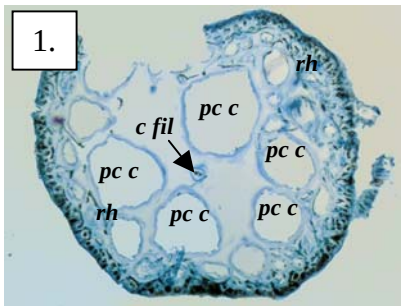
Occurrences Georgetown, Tasmania, Port Phillip, Victoria, possibly Tiparra Reef, S. Australia

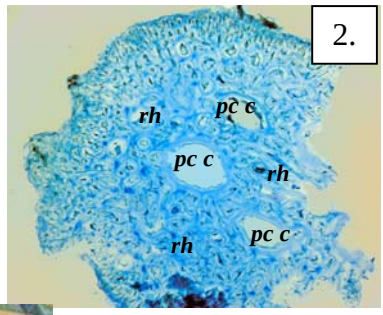
Usual Habitat possibly on rocks, 10-12m deep

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

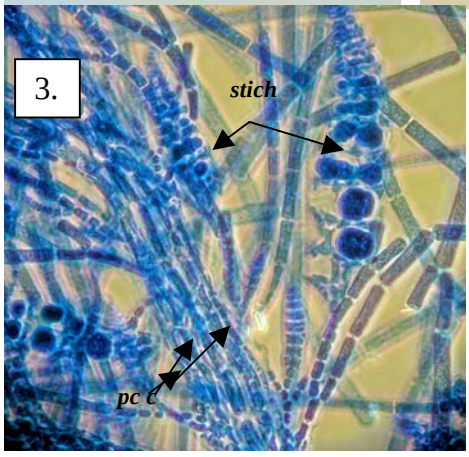
Details of Anatomy

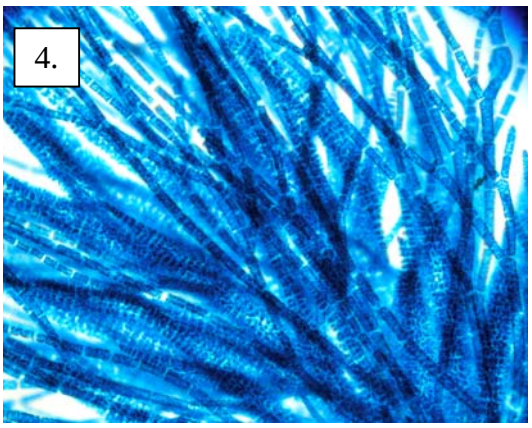


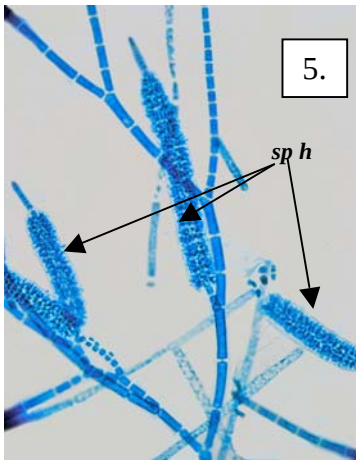


Cross sections of *Dasya hapalathrix* (A56444 slide 917015) stained blue and viewed microscopically:

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







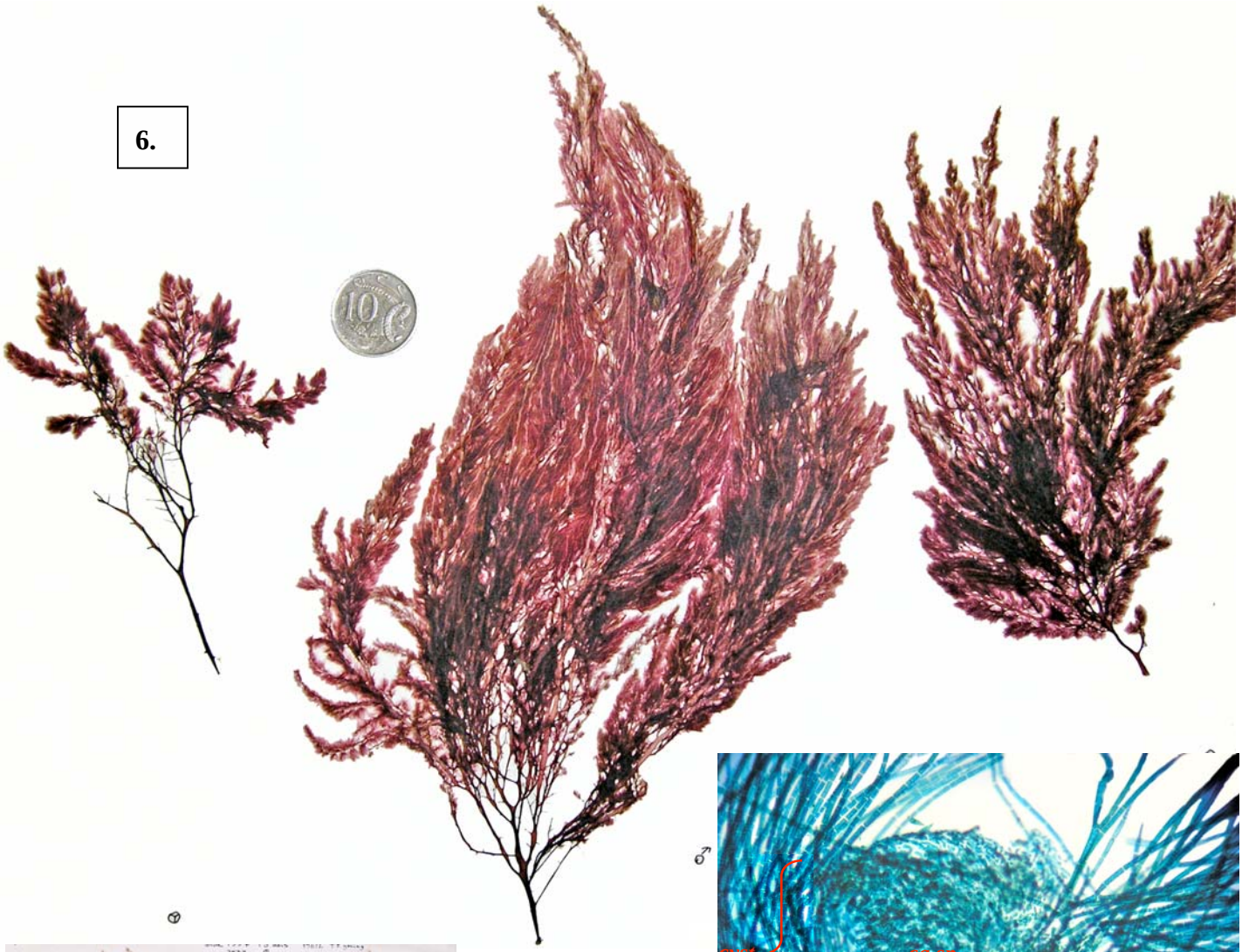
3-5. *Dasya hapalathrix* A56444 stained blue and viewed microscopically

3. stichidia (*stich*) and young side branch with flanking (pericentral cells, *pc c*) visible in surface view (slide 9105)

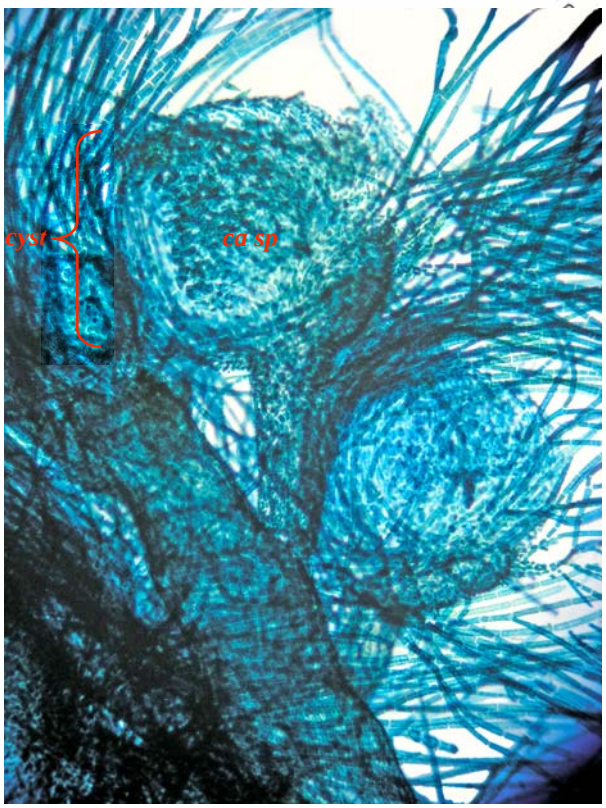
4, 5. male clusters (spermatangial heads, *sp h*) on lower pseudo-lateral branches with a short thread at tips (slide 9107)

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

6.



7.



8.

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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)

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"Algae Revealed" R N Baldock, S Australian State Herbarium, February 2007