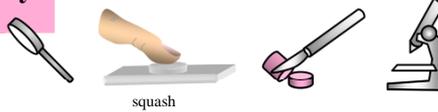


Techniques needed and plant shape



MACRO PLANT



Classification

Phylum: Rhodophyta; Order: Rhodymeniales; Family: Rhodymeniaceae
rosy blades

*Descriptive name

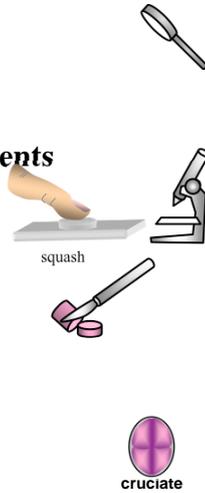
Features

1. plants rose red, 150-500 mm tall, of a delicate, soft, slimy blade, attached to seagrass stems by a short stalk, divided several times over into lobes, ruffled at margins
2. *female* blades speckled with pustulate, dark cystocarps just N of Perth, W Australia to Victoria stems of the seagrass *Amphibolis*; possibly also on rock

Occurrences

Usual Habitat

Special requirements

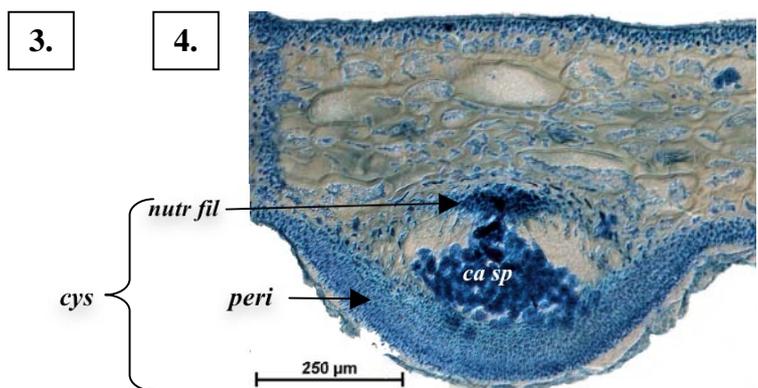
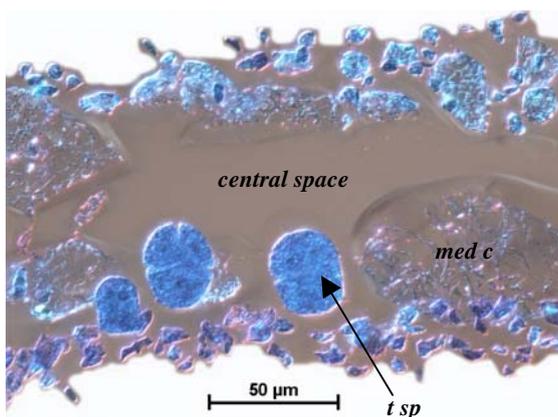
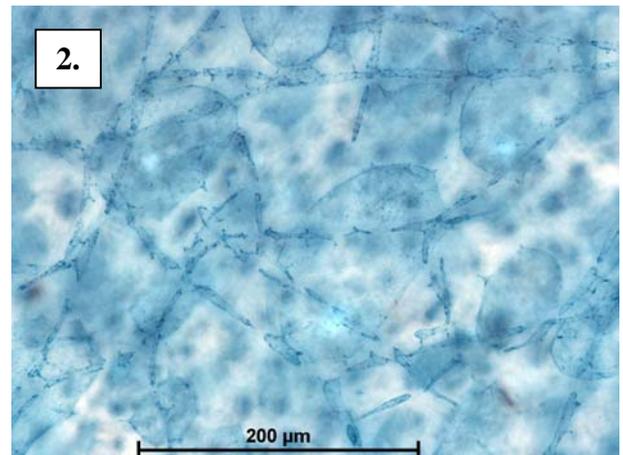
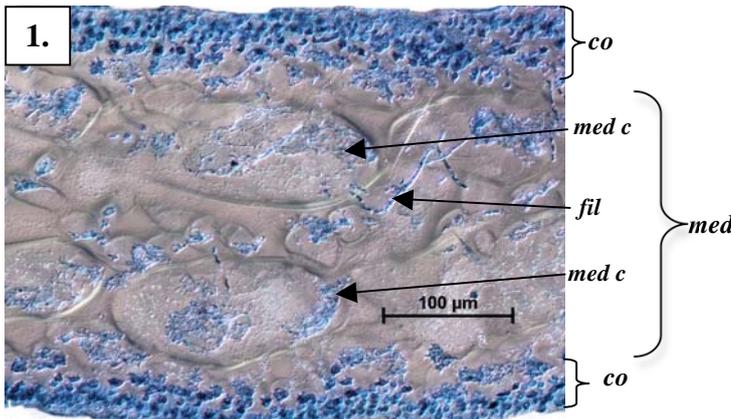


1. focus through surfaces of blades microscopically to see small surface cells in rings (rosettes) about lower, larger cells, and branched threads in cores of older blades
2. cut cross sections of blades and examine microscopically to find
 - in young parts, narrow outer (cortical) layers of small cells, inner layer (medulla) of **1 row** of large cells on either side of a central space later filled with loose threads and finally mixed with large and small cells
 - pustulate mature female structures (cystocarps) protruding slightly from blades with inner loosely arranged large cells and outer rows of small cells forming a wall (pericarp), single depressed external opening (ostiole), mass of carposporangia with a small group of basal nutritive cells embedded in the blade
3. scattered sporangia, divided in a cross pattern (cruciate) (also decussate?) superficially like some other foliose red algae, but distinctive in surface cells in rosettes

Similar Species

Description in the Benthic Flora

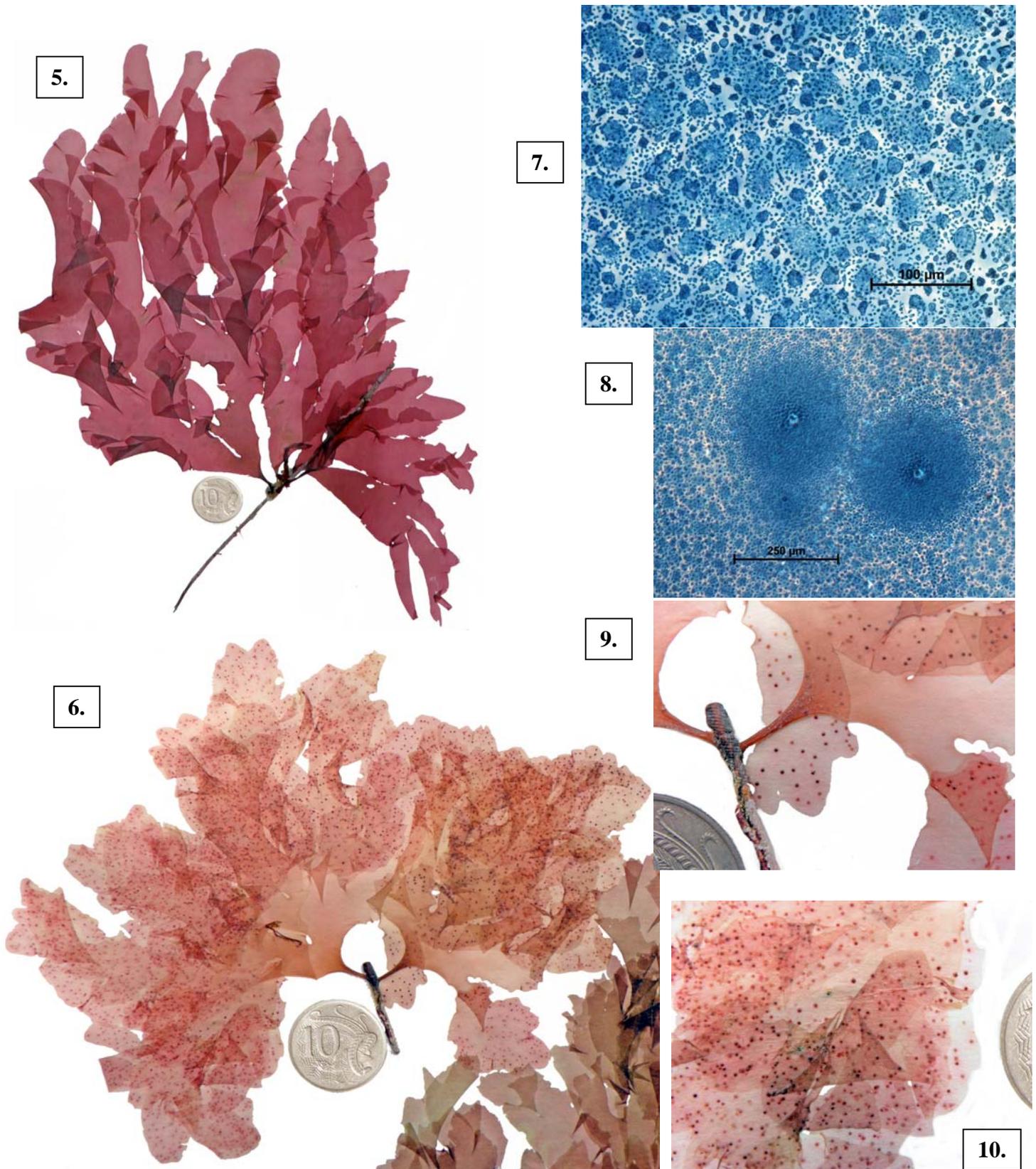
Part IIIB, pages 103-107



Leptosomia rosea stained blue and viewed microscopically (#1, 3, 4 cross sections; #2 surface view)

1. mature blade with outer layers (cortex, *co*) of small cells, inner layer (medulla, *med*) of a row of **large**, oval cells (*med c*) either side of a central space becoming filled with threads (filaments, *fil*) and small cells of mixed sizes (A44206 slide 14069)
2. a focus through the surface cells to expose the innermost branched threads of the medulla (A51274 slide 14058)
3. young blade with central space of the medulla (*med sp*) and tetrasporangia (*t sp*) in the cortex (A33872 slide 14064)
4. mature female structure (cystocarp, *cys*) with basal nutritive threads (*nutr fil*) mass of carposporangia (*ca sp*) and cellular wall (pericarp, *peri*) of rows of small cells (A44206 slide 14069)

*Descriptive names are inventions to aid identification, and are not commonly used
"Algae Revealed", R N Baldock, S Australian State Herbarium December 2010



Specimens of *Leptosomia rosea* (Harvey) Womersley from S Australia

5. from 1-2m deep, Robe on *Amphibolis* stem (A54302)

6. drift specimen from Cape Jaffa (A61787)

7, 8. stained blue and viewed microscopically, surface views (A57848 slide 10485)

7. ring patterns (rosettes) of cells

8. mature female structures (cystocarps) with prominent openings (ostioles)

9, 10. magnifications of a blade base with the holdfast wrapped around a seagrass stem and a ruffled upper blade with pustulate cystocarps (A61787, slide 10485)