



MACRO
PLANT



Techniques needed and shape

Classification

Phylum: Rhodophyta; Order: Gigartinales; Family: Cystocloniaceae
finely fringed blades

*Descriptive name

Features



plants red, fading to yellow brown, 50-100 mm tall, of soft, *thin* and *flat-branched* blades **4-7mm** broad, *regular* in width, *forked* or laterally branched; *fringed* with tiny, cylindrical, proliferations about **1mm long**

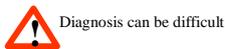
Occurrences
Usual Habitat

Geraldton, W Australia to Victoria and Bass Strait
a moderately deep water species (28m) in slight to moderate water movement, often on seagrass (*Amphibolis*) stems

Similar Species

members of the Delesseriaceae (“filmy reds”), but differing in the presence of cell rings (rosettes) in surface view. Differing in female reproductive features from *Rhodophyllis* Part IIIA, pages 420-423

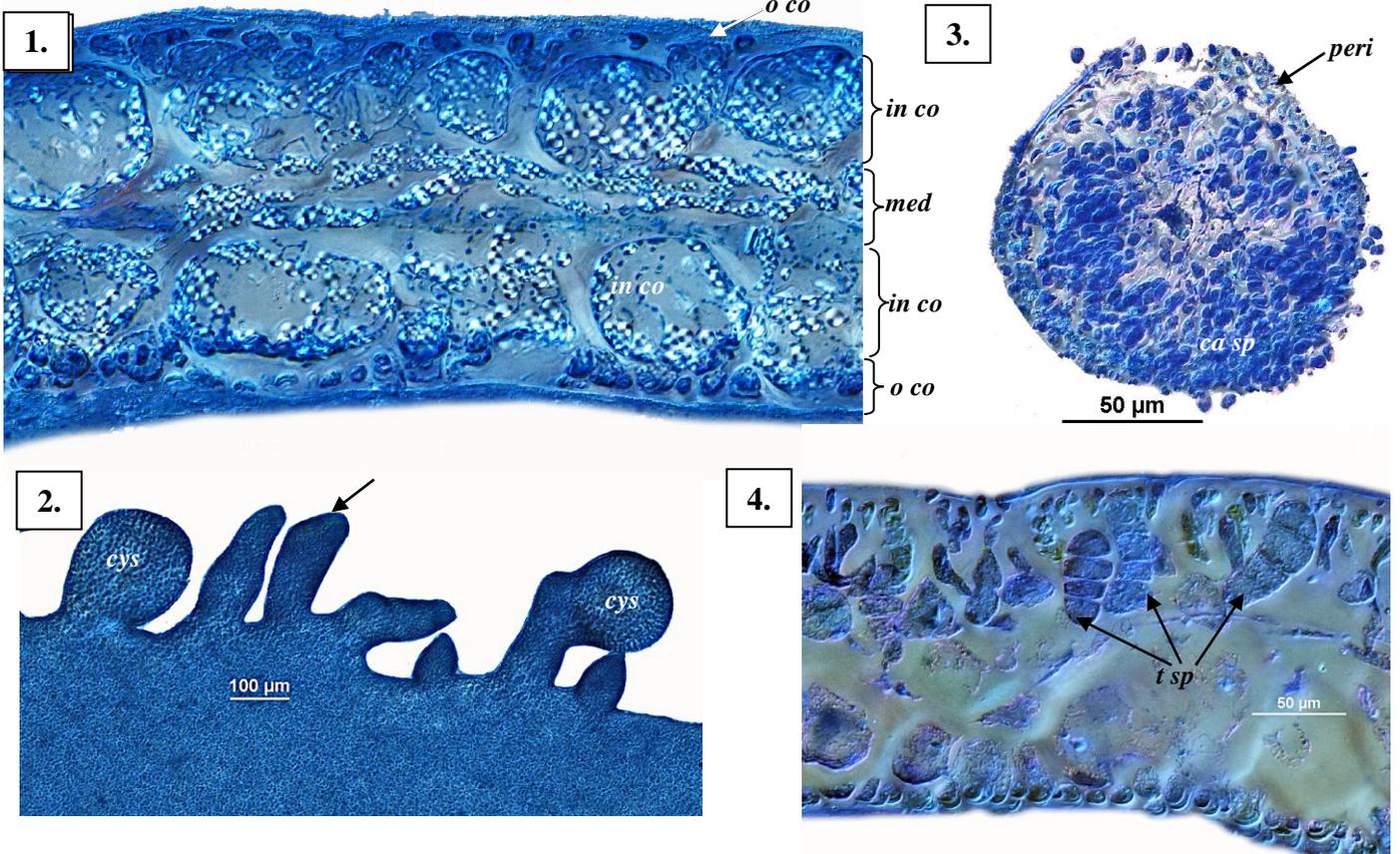
Description in the Benthic Flora
Special Requirements



- view microscopically to find
1. in surface view: *rounded* blade tips, *faint veins*, flat-branched (pinnate) (best seen when stained blue), small cells ringing larger ones (*rosettes*)
 2. in cross sections: a vague core (medulla, *med*) of a few, obscure threads; wide layers (cortex, *co*) of *large* spherical cells; *ringed* with smaller ones (forming the rosettes), bright gland cells *absent*
 3. in cross sections of spherical swellings in the fringing proliferations of female plants: central masses of cells (gonimoblast), *chains* of sporangia (carposporangia, *ca sp*), *cellular wall* (pericarp, *peri*) but *no* opening (ostiole)
 4. in sporangial plants: *large*, tetrasporangia, *scattered* in the cortex of fringing proliferations, divided across into four sporangia (*zonate*)

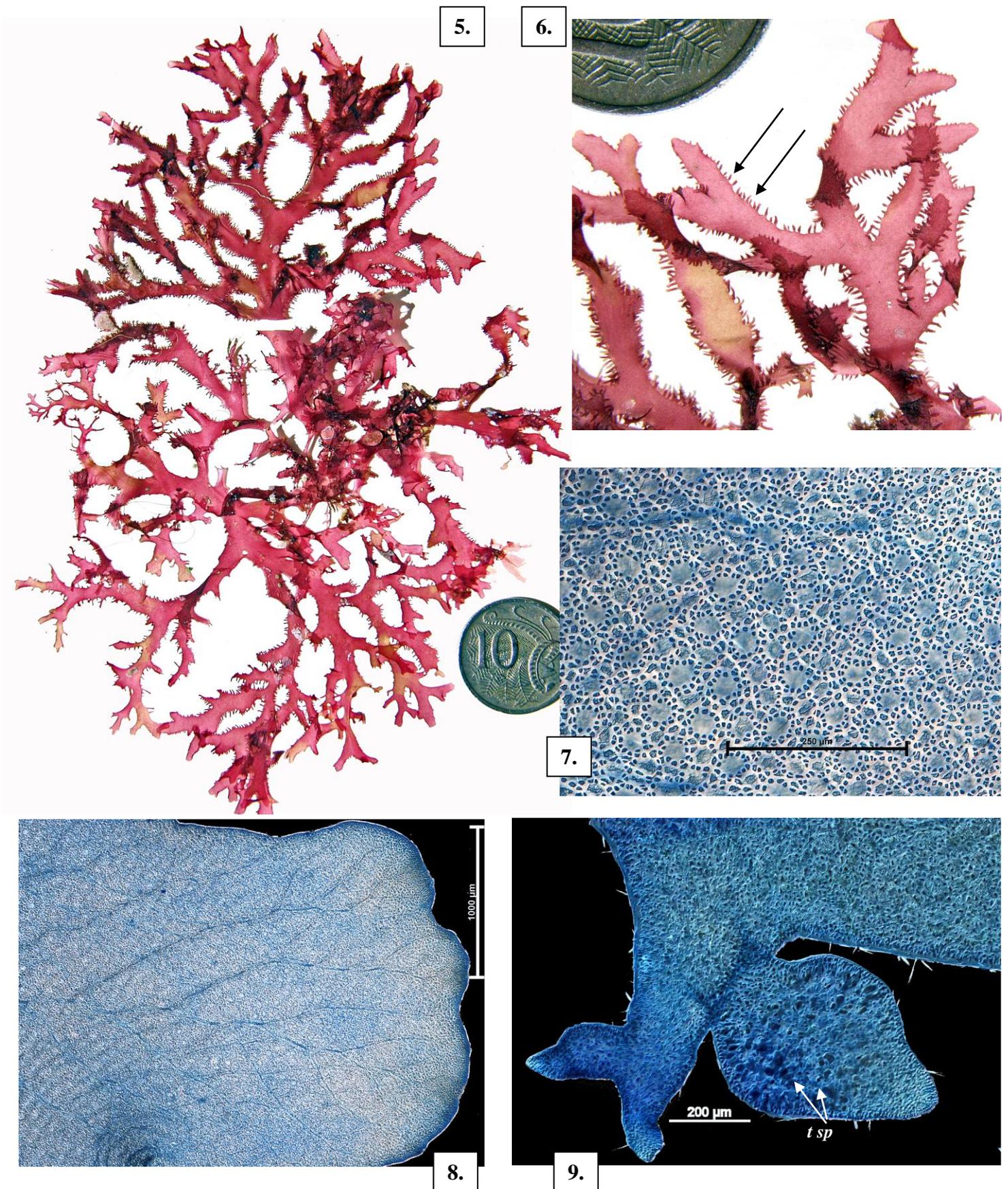
Details of Anatomy

50 µm



Craspedocarpus blepharicarpus stained blue and viewed microscopically

1. blade cross section: several threads in the core (medulla, *med*), layers of inner large cells (inner cortex, *in co*) ringed by outer small cells (outer cortex, *o co*) (slide 19117)
2. surface view of fringing proliferations bearing female structures (cystocarps, *cys*) (slide 13165)
3. cystocarp extracted from a fringing proliferation: chains of carposporangia (*ca sp*), cellular wall (pericarp, *peri*) (slide 19118)
4. cross section through a fringing proliferation bearing tetrasporangia (*t sp*) divided across (zonate) (slide 17580)



- 5, 6. *Craspedocarpus blepharicarpus* (Harvey) Min-Thein & Womersley from W Australia, (A18175): magnification of regular, fine, fringing outgrowths (arrowed)
- 7-9. surface microscope views of specimens stained blue
7. pattern of small cells characteristically ringing larger ones (rosettes) (slide 19116)
8. frond tip: branching veins (slide 17579)
9. fringing proliferations, one bearing scattered tetrasporangia (*t sp*) (slide 13158)