

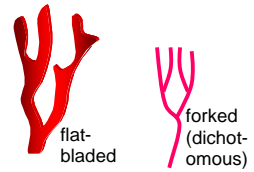
Halopeltis (Rhodymenia) verrucosa
(Womersley) Saunders

45.660

Techniques needed and plant shape



MACRO
PLANT



Classification

Phylum: Rhodophyta; Order: Rhodymeniales; Family: Rhodymeniaceae

***Descriptive name**

§ a red forkweed, warty red forkweed

Features

1. plants red to red-brown, 30-140 (-200) mm long, of obscure cylindrical stalks and slightly gristly, flat, thin, forked blades 3-8 mm wide, usually thicker at the margins; blades often encrusted with bryozoans and hydroids
2. sporangia, if present, in **well-defined** patches (nemathecia)
3. mature female structures (cystocarps), protruding from blades, **warty**, often in clusters

Althorpe I., S Australia to Victoria and E Tasmania.

shallow to deep water (20m) on rock and seagrasses

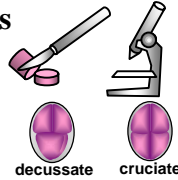
cut cross sections and examine microscopically to find

- narrow outer (cortical) layers of small cells facing outwards, grading rapidly to larger, rounded, inner (medulla) cells with **gaps** between cells
- **well-defined** patches of tetrasporangia, sporangia divided decussately or in a cross pattern (cruciate), mixed with branched, elongate outer (cortical) cells
- **warty** mature female structures (cystocarps) protruding from blades, rows of small cells forming a wall (pericarp) with single opening (ostiole), mass of egg-shaped carposporangia with basal nutritive cells

Occurrences

Usual Habitat

Special requirements



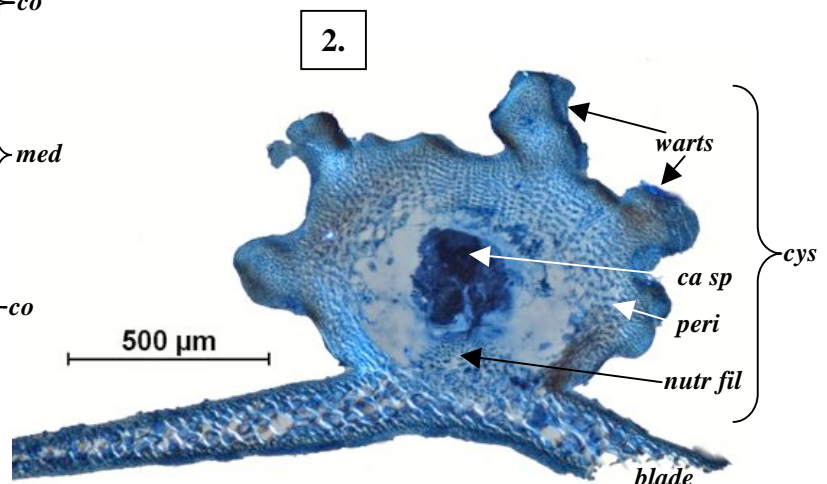
Similar Species

Rhodymenia foliifera and difficult to separate if cystocarps are absent

Description in the Benthic Flora

Part IIIB, pages 76-78

§NOTE: Saunders, G W & B McDonald (2010) *Botany* vol. 88, pp 639-667 using DNA sequencing, found hidden species within existing members of *Rhodymenia*. This required renaming some of the species described in the Marine Benthic Flora of SA

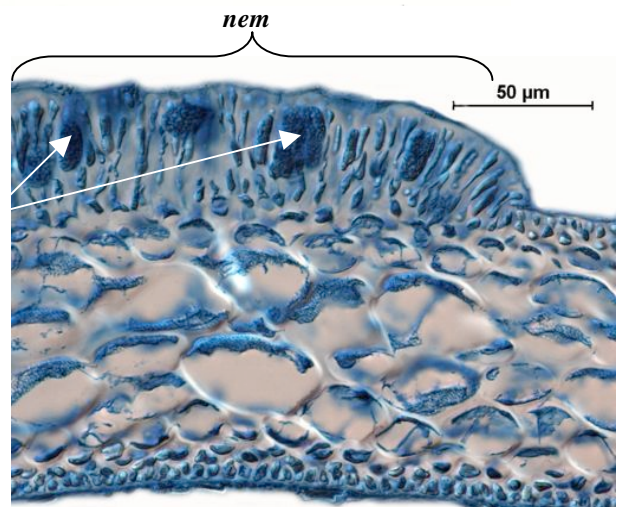


1.

Cross sections of *Halopeltis verrucosa* stained blue and viewed microscopically

1. blade, showing small cells of outer (cortical, *co*) layers, grading rapidly to large cells of the core (medulla, *med*) with spaces between cells (A70717)
2. blade with attached cystocarp showing warty outgrowths (*warts*), mass of carposporangia (*ca sp*), cellular wall (pericarp, *peri*) of rows of small cells and basal nutritive tissue (*nutr fil*) (A43500 slide 14520)
3. edge of a well-defined sporangial patch (nemathecium, *nem*) with tetrasporangia (*t sp*) amongst elongate cells (A43332 slide 15160)

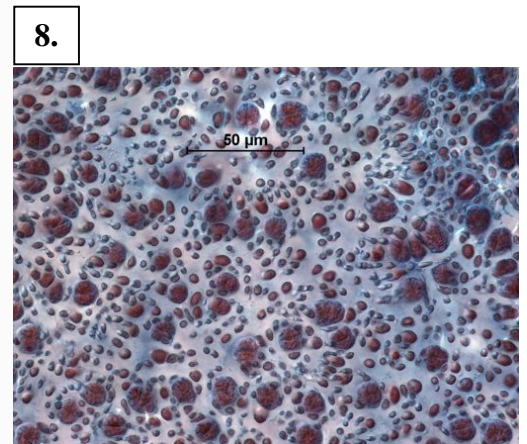
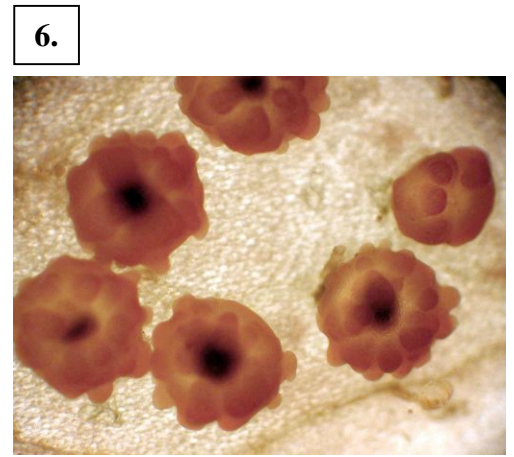
3.



§ name used in Edgar, G. *Australian Marine Life, 2nd Ed.* (2008) for other *Rhodymenia* species

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

“Algae Revealed”, R N Baldock, State Herbarium S Australia, November 2010; edit. November 2013



- 4, 5. *Halopeltis verrucosa* Harvey showing variations in shape of plants and encrustations of coralline red algae and bryozoan and polychaete animals
4. from 2m deep, Cape Buffon S Australia (A62801)
5. from 16 deep, Fluted Cape, Tasmania (A41526)
- 6-8. magnified surface views
- 6, 7 cystocarps of a specimen from Althorpe I., S Australia (A70717)
8. tetrasporangia ringed by cortical cells (A43332 slide 15159)

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