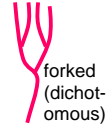


Techniques needed and plant shape



MACRO PLANT



Classification

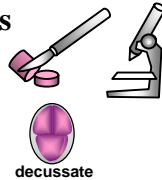
\*Descriptive name

Features

Occurrences

Usual Habitat

Special requirements



Phylum: Rhodophyta; Order: Rhodymeniales; Family: Rhodymeniaceae  
§ a red forkweed

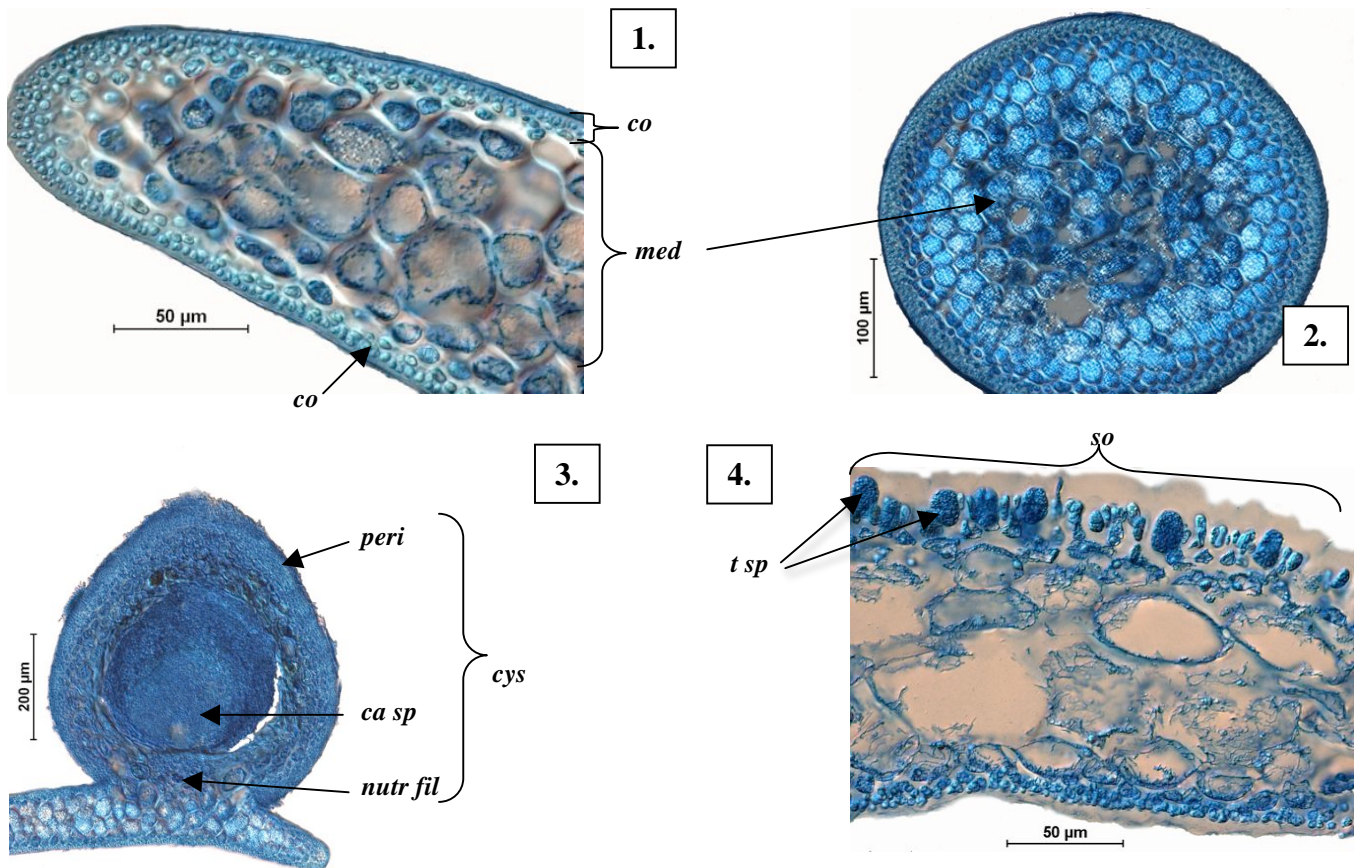
1. plants red, fading to grey-red, 40-100 (-300) mm long; blades 2-5 mm wide above, **narrowing** to long, thin, cylindrical **stalks** arising from a tangled mass of runners. Blade tips rounded or older ones ending in long, **thin extensions** (response to grazing?).
2. ball-shaped mature female structures (cystocarps), if present, protruding from blades  
West I., S Australia to Victoria, around Tasmania, NSW, Queensland. New Zealand shaded intertidal pools to 16 m deep, on rock

1. cut cross sections of blades and examine microscopically to find
  - narrow outer (cortical) layers of small cells facing outwards, grading to large inner (medulla) cells **loosely** arranged
  - scattered, diffuse patches of tetrasporangia, sporangia divided decussately, mixed with small outer (cortical) cells
  - egg-shaped or beaked mature female structures (cystocarps) protruding from blades with inner wall of large, loosely arranged cells and outer wall of small, tightly-packed cells; a single depressed external opening (ostiole), mass of carposporangia and a small group of basal nutritive cells
2. cut cross sections of runners and examine microscopically to find a broad core

Similar Species

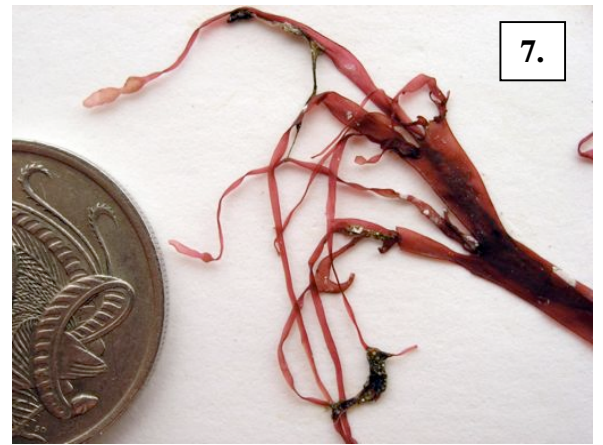
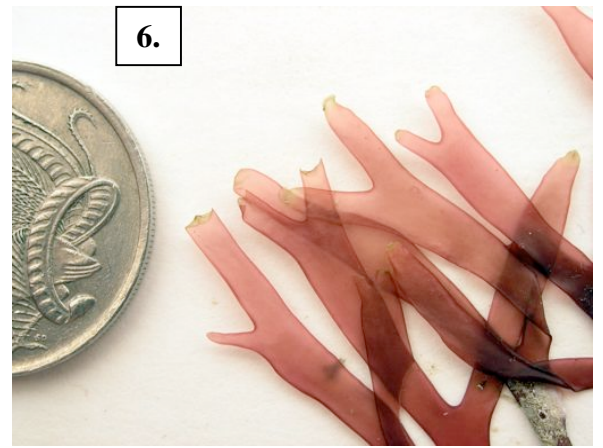
Description in the Benthic Flora

*Rhodymenia prolificans* but that has narrow tips and numerous short side branches  
Part IIIB, pages 72-73



Cross sections of *Rhodymenia leptophylla* stained blue and viewed microscopically

1. blade showing narrow outer layers (cortex, *co*) with small cells, grading to the core (medulla, *med*) of large, loosely arranged cells (A23103 slide 14145)
2. runner (stolon) showing larger core (A23103 slide 14145)
3. mature female structure (cystocarp, *cys*) showing group of small basal nutritive cells (*nutr fil*), mass of carposporangial (*ca sp*) and cellular wall (pericarp, *peri*) of larger inner cells and loose rows of outer small cells (A23103 slide 14146)
4. sporangial patch (sorus, *so*) showing tetrasporangia (*t sp*) mixed with small, elongate cells (A47214 slide 14148)



*Rhodymenia leptophylla* J Agardh showing variations in shape of plants from S Australia (#5-7, A63857 drift plants from Port MacDonnell; #8, 9 A63255 from intertidal pool edges, Cape Lannes)

5. whole plant showing basal runner, narrow blades and forked tips
6. young, broad blade tips
7. older blade tips with thin extensions
8. whole plant showing bunches of forked blades from a basal runner
9. single blade showing the characteristic basal narrowing and white, encrusting bryozoans