

Techniques needed and plant shape



Classification

Phylum: Rhodophyta; Order: Gigartinales; Family: Peyssonneliaceae
red rock- and shell-crust

***Descriptive name**

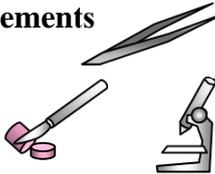
Features

plants red, 10-30mm across, on rock and shells, forming thin, encrusting, circular or spreading patches **hard to remove**, amongst paler or bleaches coralline algal crusts Europe, U.K., Mediterranean Baha California. In Australia, from Pearson I., West Coast S Australia to Victoria, and probably more widespread and not recorded on rock; and mollusc shells in shallow water to deep water or shaded intertidal pools

Occurrences

Usual Habitat

Special requirements



1. scrape off a piece of crust and view underside cells microscopically to find branching, spreading, **fan-shaped** pattern of threads (flabelloids) in the basal layer, characteristic of this species
2. a section through an encrusting scale shows a basal layer that forms fan-shaped patterns in surface view giving rise to **occasional** single-celled rhizoids below and, above, erect, branching threads of oblong cells only **3-7 cells long**
3. gelatinous patches (nemathecium) of female structures with microscopic chains of 2-5 carposporangia amongst fine hairs occur on the upper surface of plants
4. tetrasporangia mixed with fine hairs and divided in a cross-shaped (cruciate)pattern occur in shallow patches (nemathecia on the upper surface of plants

Similar Species

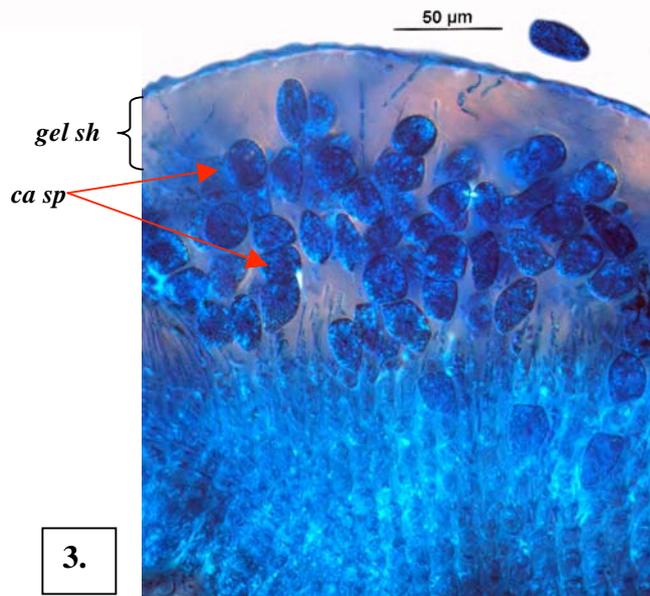
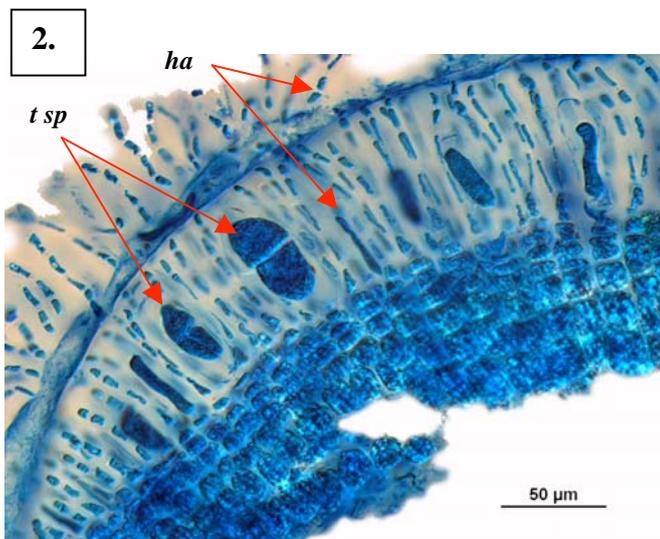
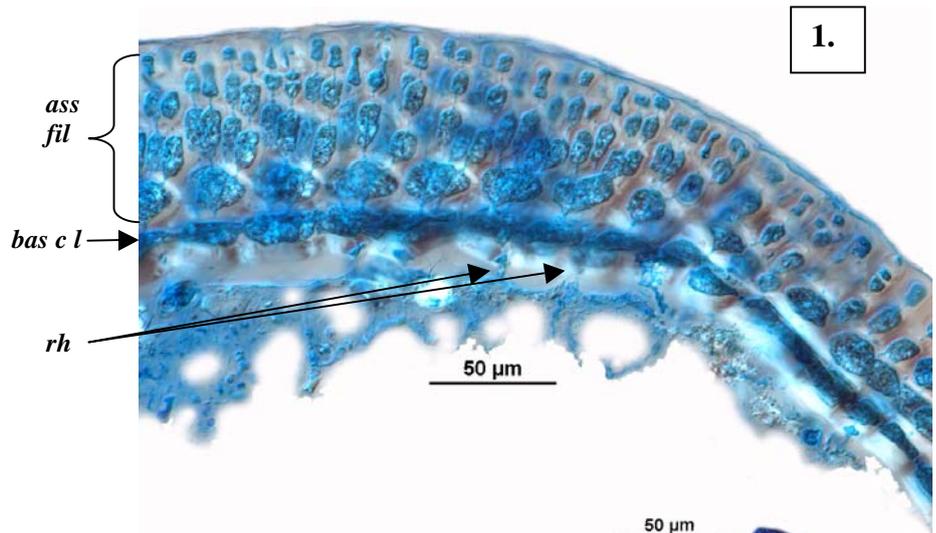
Peyssonnelia splendens and *P. inamoena*, but these species are easier to remove from rocks and internal thread anatomy is different

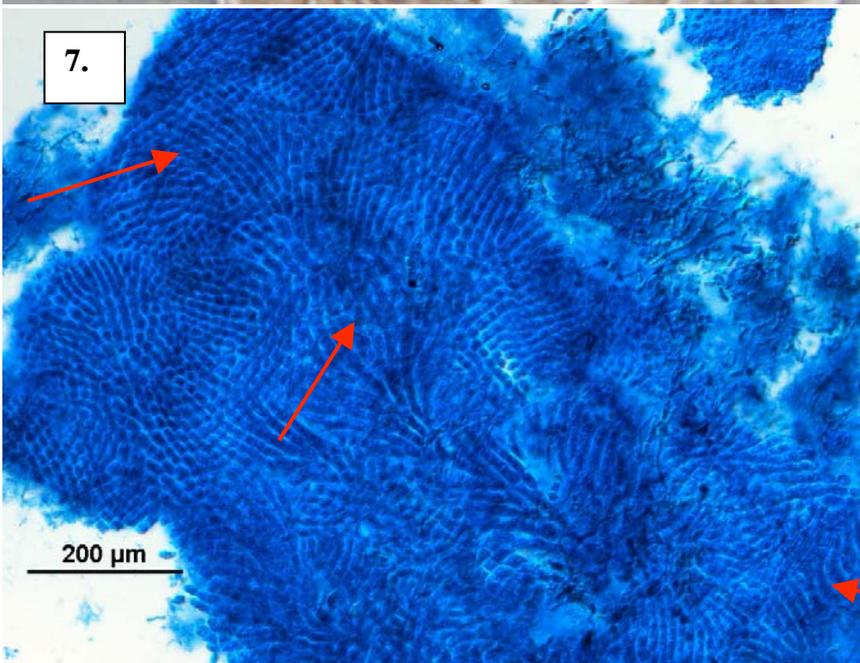
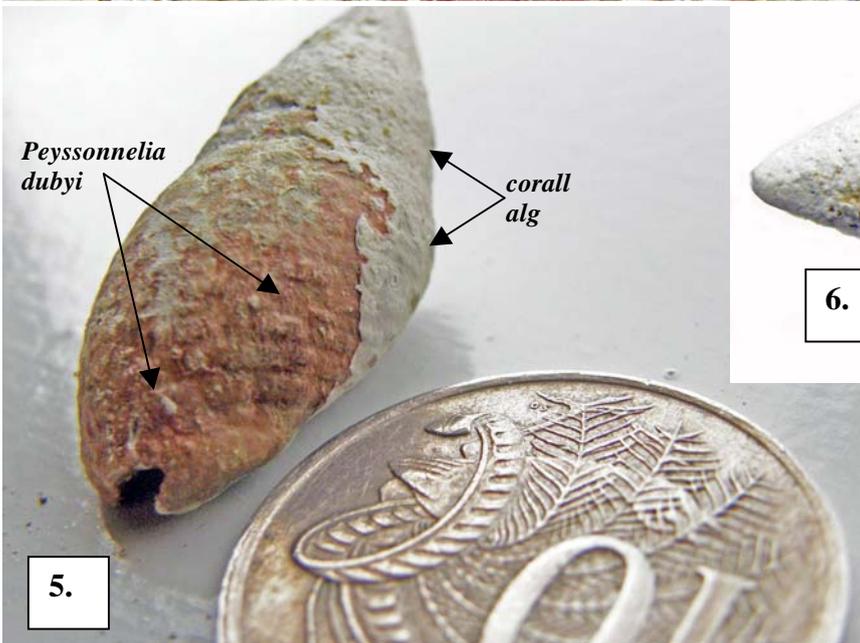
Description in the Benthic Flora Part IIIA, pages 162, 163-164

Details of Anatomy

sections of *Peyssonnelia dubyi* stained blue and viewed microscopically to show:

1. basal cell layer (*bas c l*), single-celled rhizoids (*rh*) that have detritus attached and erect threads (assurgent filaments, *ass fil*) (A61604 slide 12824)
2. part of a tetrasporangial patch (nemathecium), (*t sp nem*) with tetrasporangia (*t sp*) mixed with fine hairs (*ha*) (A61659 slide 12922)
3. part of a female patch (nemathecium, *fem nem*) with short chains of carposporangia (*ca sp*), a few fine hairs and gelatinous sheath (*gel sh*) (A61660 slide 12923)





Peyssonnelia dubyi Crovan & Crovan
 from S Australia

4. on calcrete from reef pools, inner reef at Elliston, West Coast (A15071A)

5, 6. on an eroded *Comminella* gastropod shell together with bleached coralline algae (*corall alg*), 5-10m deep, Cable Bay, southern Yorke (A61734)

7. a specimen (A61151 slide 12116) scraped from rock, stained blue and the underside cell layer viewed microscopically to see the fan-shaped patterns (flabelloids, two are arrowed) of the branching basal cell threads