

Leptophyllis conferta
(R Brown ex Turner) J Agardh

45.760



Techniques needed and plant shape

Classification

*Descriptive name

Features

Phylum: Rhodophyta; Order: Bonnemaisoniales; Family: Bonnemaisoniaceae
slender leaved red weed

- red to red-brown, fading to yellow, 50-150mm tall, *flat-branched, compressed*, of
 - numerous *thin* main branches (axes), about 2mm wide
 - side branches flat, often edged in minute teeth, *narrower basally*
- barrel-shaped products of fertilisation (cystocarps, *cys*) *at ends of opposite short branchlets*



Occurrences

Usual Habitat

Special requirements

West Coast S Australia, to Victoria and Tasmania

probably a deep water species (collected at 30m)

focus through the surface of plants microscopically to find:-

- a single, *tiny* tip cell, *central thread*, characteristic opposite, curved side threads *of equal size* their cell products cohering together into a flat blade
- side threads ending in a minute tooth at the blade edge
- minute spermatangia in surface patches *at branch tips*
- barrel-shaped products of fertilisation *at ends of opposite short branchlets*
- warty*, irregular patches of tetrasporangia on branch surfaces near tips

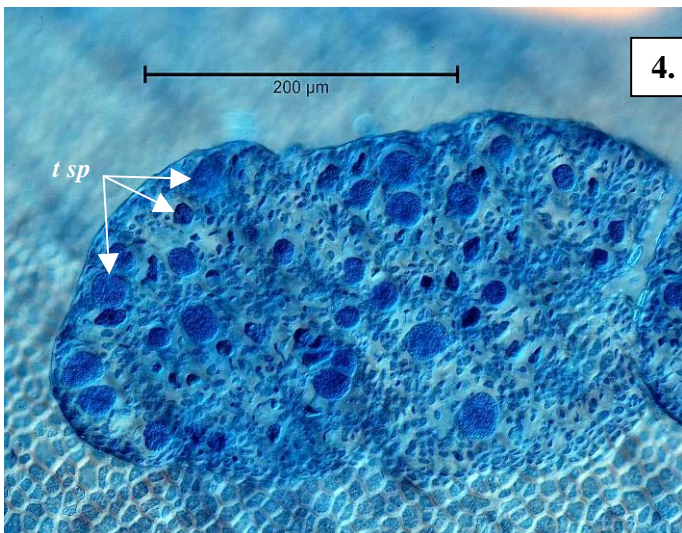
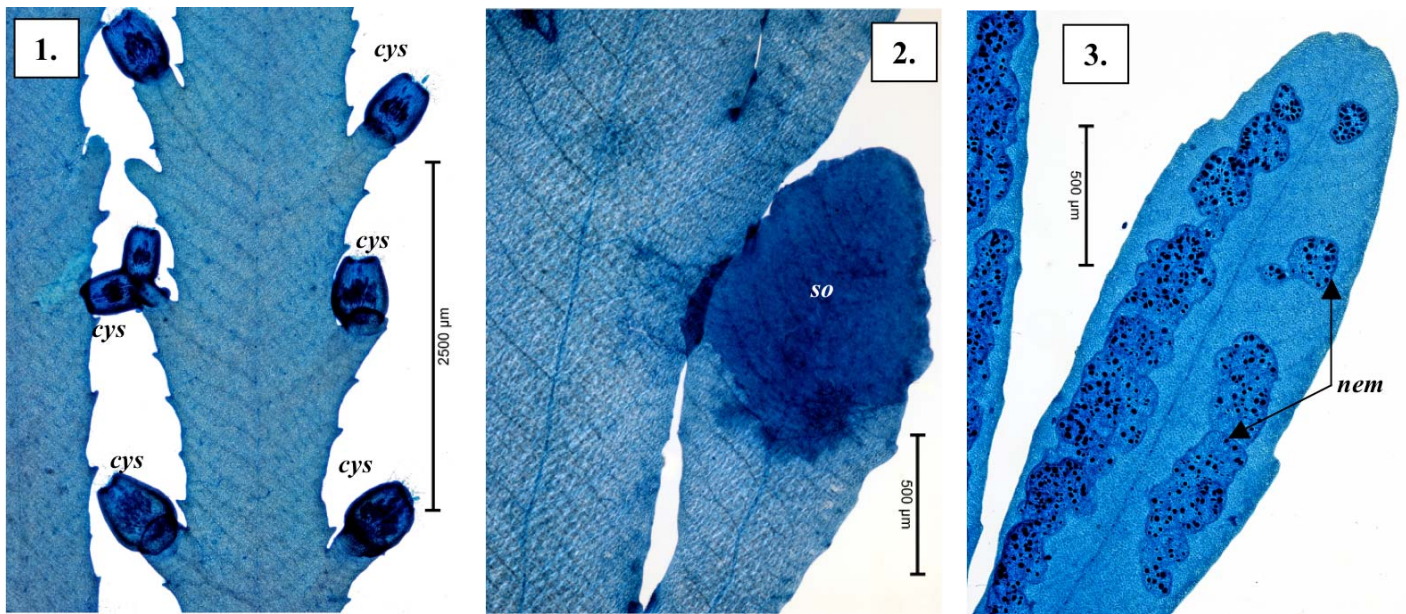
Similar Species

Description in the Benthic Flora

Details of Anatomy

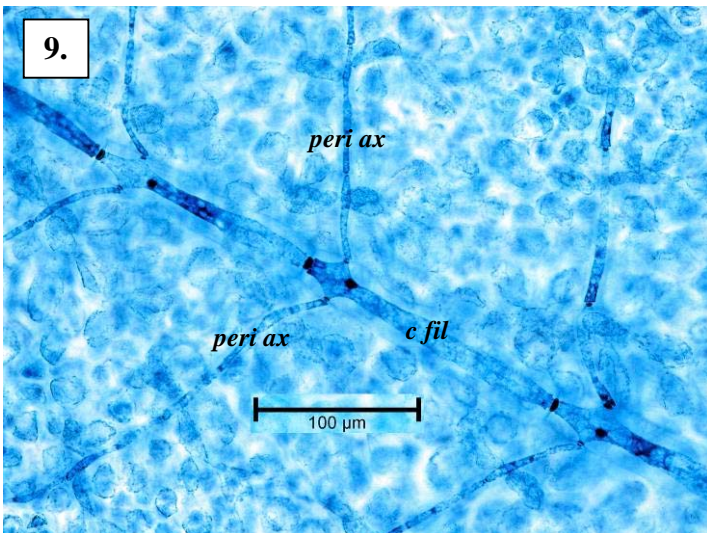
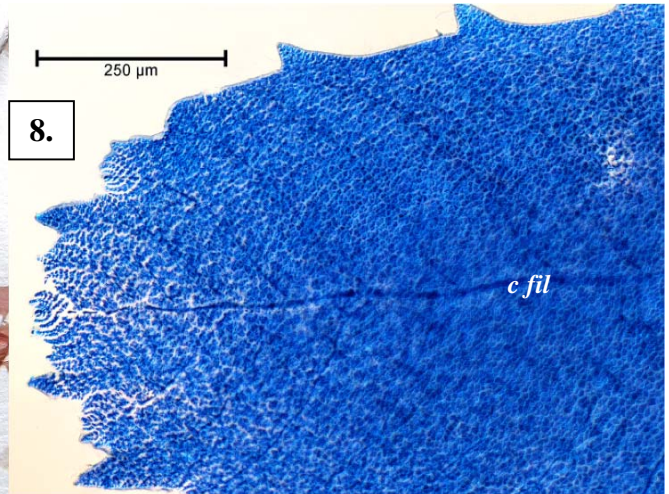
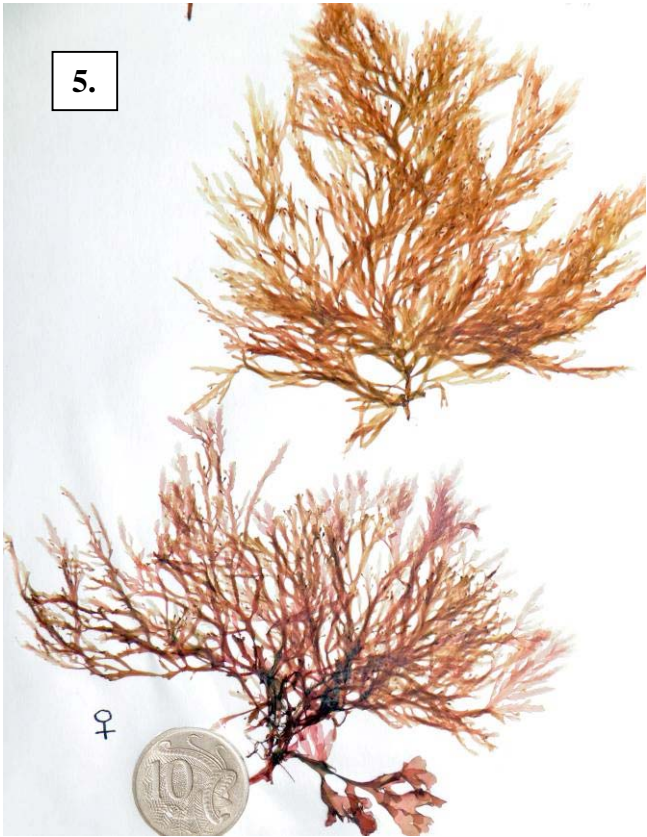
Ptilonia spp but those have *thicker* blades; internal, paired side threads *unequal* in size

Part IIIB, pages 347-349



Microscope surface views of *Leptophyllis conferta* stained blue:

- barrel-shaped products of fertilisation (cystocarps, *cys*), one set paired, at ends of opposite short branchlets; mid-vein with pairs of side veins extending to teeth on blade margin (A63352 slide 14168)
- surface patch (sorus, *so*) of male spermatangia at branch tip (A34873 slide 13638)
- warty patches (nemathecia, *nem*) of sporangia (A10949 slide 13633)
- detail of a sporangial nemathecium with tetrasporangia (*t sp*) (A10949 slide 13633)



Leptophyllis conferta (R Brown ex Turner) J Agardh from South Australia, at different magnifications
 5, 6. drift plants (A31629) from Stinky Bay (Nora Creina) (lower plant attached to a foliose red alga)
 7. detail of branches, some with cystocarps, on a drift plant from Robe (A34873)
 8, 9. microscope surface views of specimens stained blue
 8. branch tip; characteristic alternating pattern of cell threads adhering into a flat blade, central thread (*c fil*), paired side threads (*peri ax*) ending in blade teeth or new branches (A63352 slide 14168)
 9. a view focussing through surface cells; central thread (*c fil*); paired side threads (periaxials, *peri ax*) of **equal size** (A34873 slide 13636)

*Descriptive names are inventions to aid identification, and are not commonly used
 "Algae Revealed", R N Baldock, S Australian State Herbarium March 2012