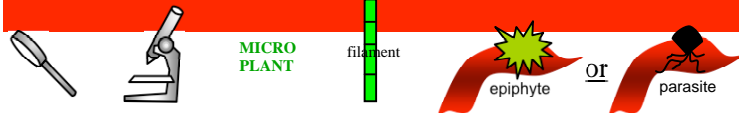


Techniques needed and plant shape



Classification

Phylum: Rhodophyta; Order: Ceramiales; Family: Rhodomelaceae
Species of uncertain status

***Descriptive name**

minute tufts

Features

plants pale, tiny tufts about 2mm across on the red algae *Micropeuce* and *Polysiphonia decipiens*

Occurrences

E coast of Gulf St Vincent, S Australia (Brighton, and Grange tyre reef)

Special requirements

view plants microscopically to find:



- basal pad of tightly packed cells and upright, naked (uncorticated) threads central, mostly unbranched thread each cell flanked by 5 (pericentral) cells and short side “branches” (trichoblasts), ending in hair-like cells
- **female structures** (cystocarps) on the lower cells of **trichoblasts**, **egg-shaped** with an early cellular envelope (pericarp) and apical opening (ostiole), **club-shaped** spores inside
- male structures **replacing** trichoblasts, forming elongate **heads** of tiny spermatangia
- tetrasporangial branches (stichidia) with opposite pairs of sporangia in 2 rows (**decussate**) and lateral trichoblasts, in upright threads

Usual Habitat

epiphytic or parasitic on red algae

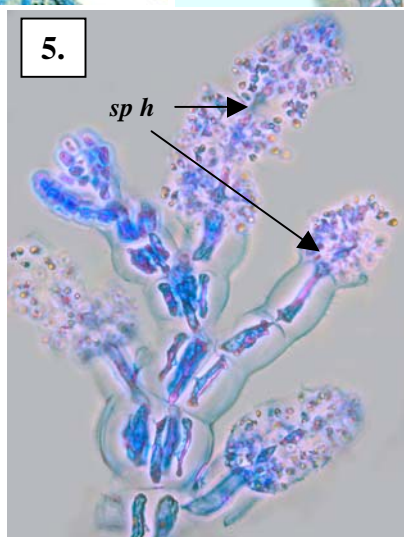
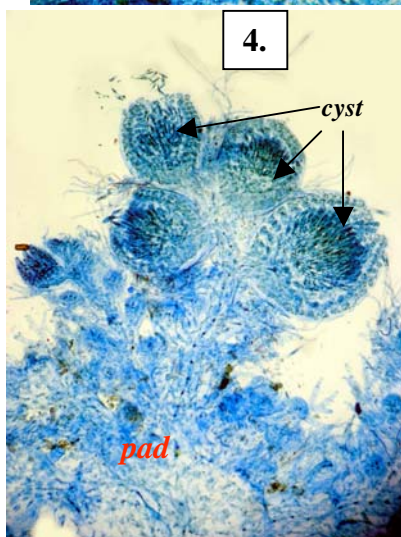
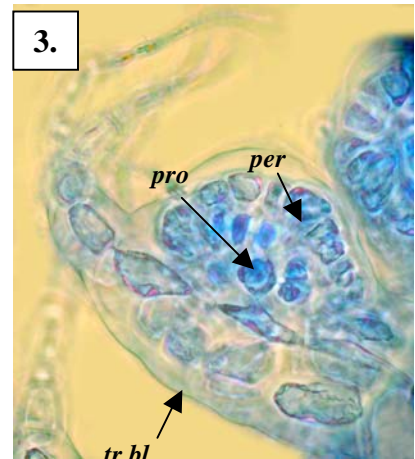
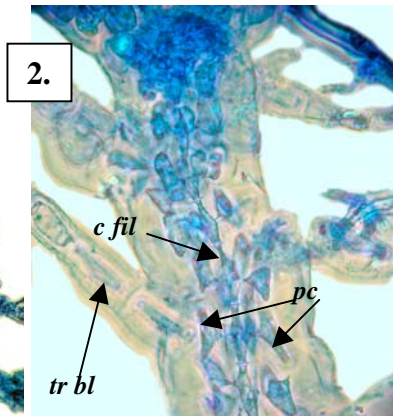
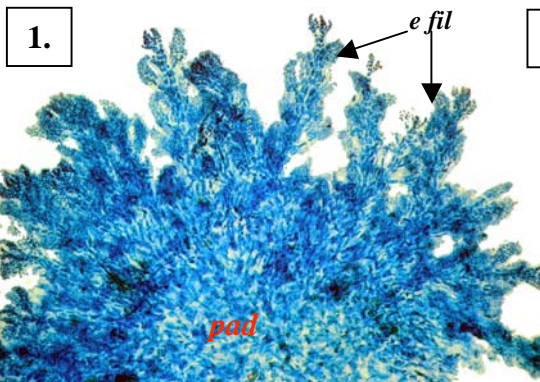
Similar Species

distinctive because of its attachment to particular hosts, but difficult to place in a Tribe because of the mix of characteristics

Description in the Benthic Flora

Part IIID, pages 495-497

Details of Anatomy



Chamaethamnion schizandra A56426 slide 9088 stained blue and viewed microscopically.

1. a whole male plant with basal pad of cells intermingled with host cells (*pad*) and erect threads (*e fil*)
2. detail of an erect thread showing the central filament (*c fil*), flanking cells (*pc*), and the base of a trichoblast (*tr bl*)
3. young female structure (procarp, *pro*) with a sterile coat (pericarp, *per*) at the base of a trichoblast
4. female structures after fertilisation (cystocarps, *cyst*) with club-shaped spores inside
5. male (spermatangial) heads (*sp h*) in the position of trichoblasts

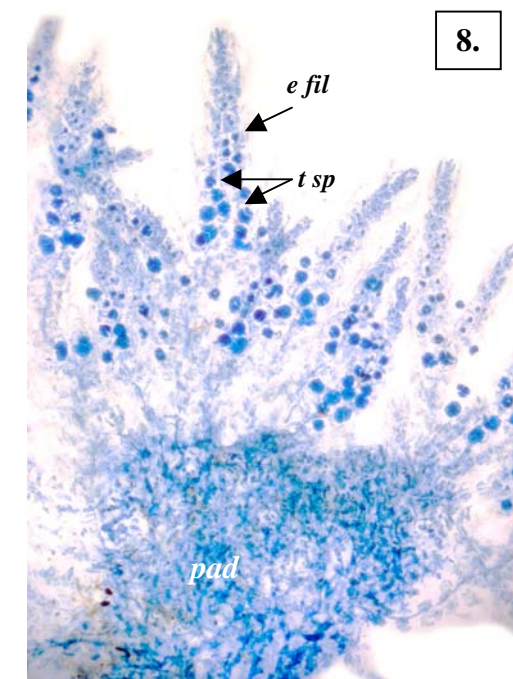
* Descriptive names are inventions to aid identification, and are not commonly used
“Algae Revealed” R N Baldock, S Australian State Herbarium, March 2007



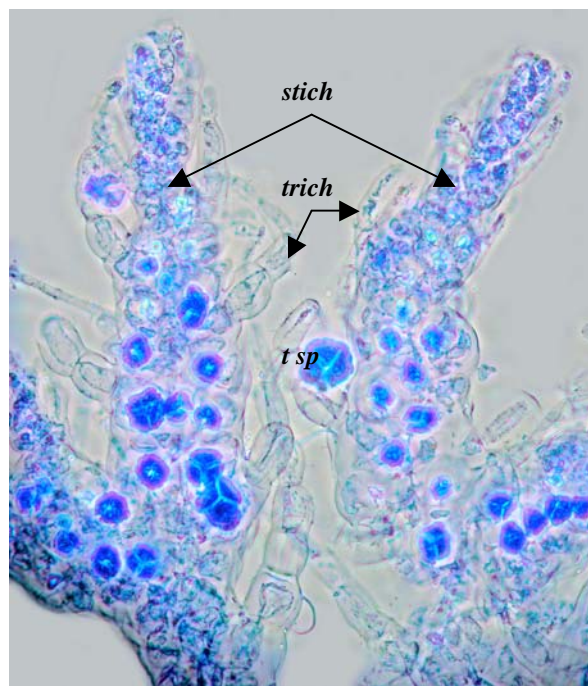
6. *Chamaethamnion schizandra* Falkenberg in Schmitz & Falkenberg, A29666 (arrowed) on *Micropeuce faradayae*, a drift specimen from Brighton, S Australia
7. plants (arrowed) on fragments of *Micropeuce* from an artificial reef 20m deep, 7km offshore from Grange, S Australia (A56426)
- 8, 9. specimens (A29669 slide 641) stained blue and viewed microscopically
7. whole tetrasporangial plant with basal pad (*pad*) and erect filaments (*e fil*), some bearing sporangia (*t sp*)
8. detail of branches bearing paired sporangia (stichidia, *stich*) and trichoblasts (*trich*)



7.



8.



9.

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 "Algae Revealed" R N Baldock, S Australian State Herbarium, March 2007