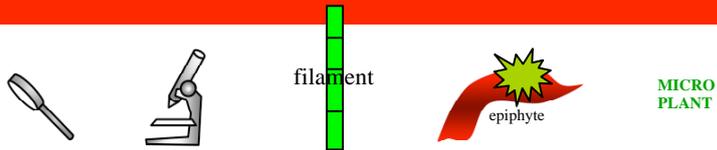


Techniques needed and plant shape



Classification

Phylum: Rhodophyta; Order: Ceramiales;
Family: Ceramiaceae; Tribe: Ceramieae
cup threads

*Descriptive name

Features



plants red forming a dense fuzzy coating to 10mm tall on the articulated coralline, *Haliptilon*

Special requirements



view microscopically to find:

- **horizontal** (prostrate) threads attached to *Haliptilon* by **bunches** of rhizoids ending in **many-celled** attachment pads (haptera) and upright threads of elongate cells, **naked** except for dense **cup-shaped rings** (cortication) of small-celled branches divided 2-3 times **upwards** (acropetally), ending in fine hairs
- **stalkless** tetrasporangia with **large** sheaths, divided tetrahedrally, initially on **one side** of the cup-shaped rings, later in a complete ring, corticating branches forming a wrapping or **involucre**
- masses of spores (carposporangia) the product of fertilisation forming **part-way** along the upright threads in the fork of **several** branches

Occurrences

Usual Habitat

D'Estrees Bay, Kangaroo I., S. Australia, and Port Phillip Bay, Victoria growing (epiphytic) on *Haliptilon roseum* in pools at the reef edge and possibly also on *Corallina repens*

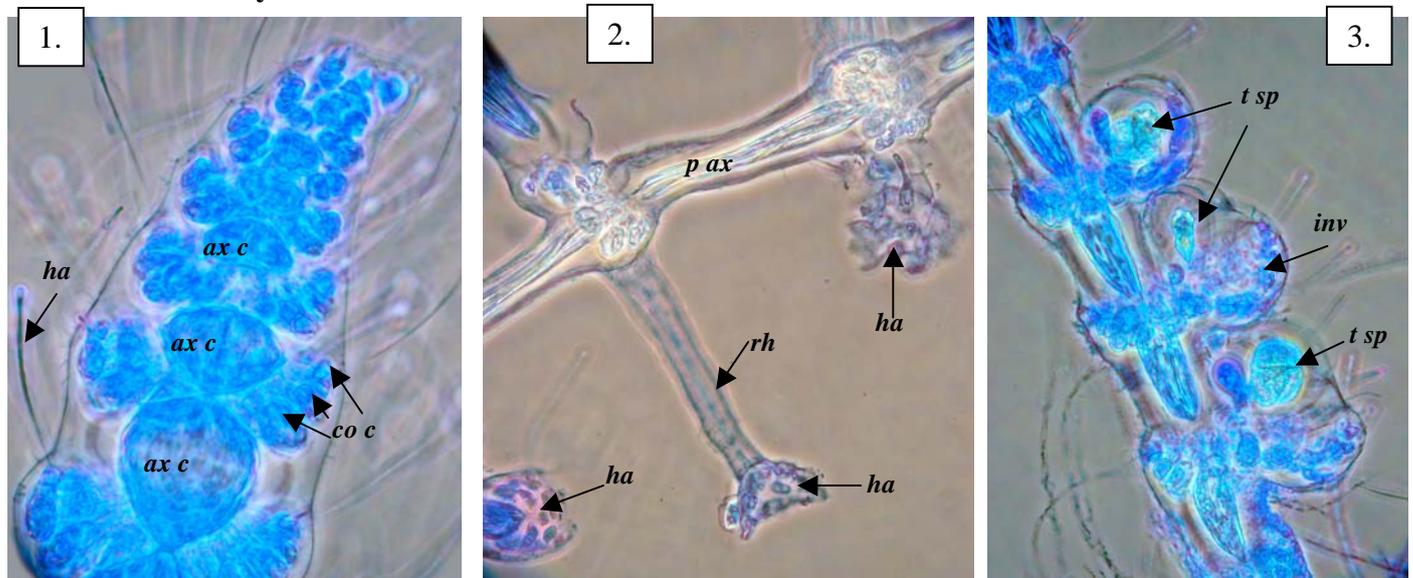
Similar Species

Ceramium filiculum has similar rhizoids, but corticating branches develop upwards **and** down-wards, and that species grows on large brown algae

Description in the Benthic Flora

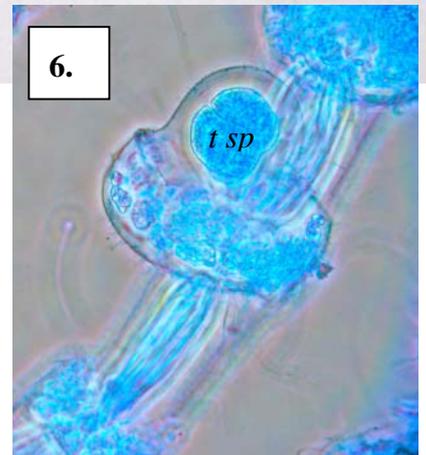
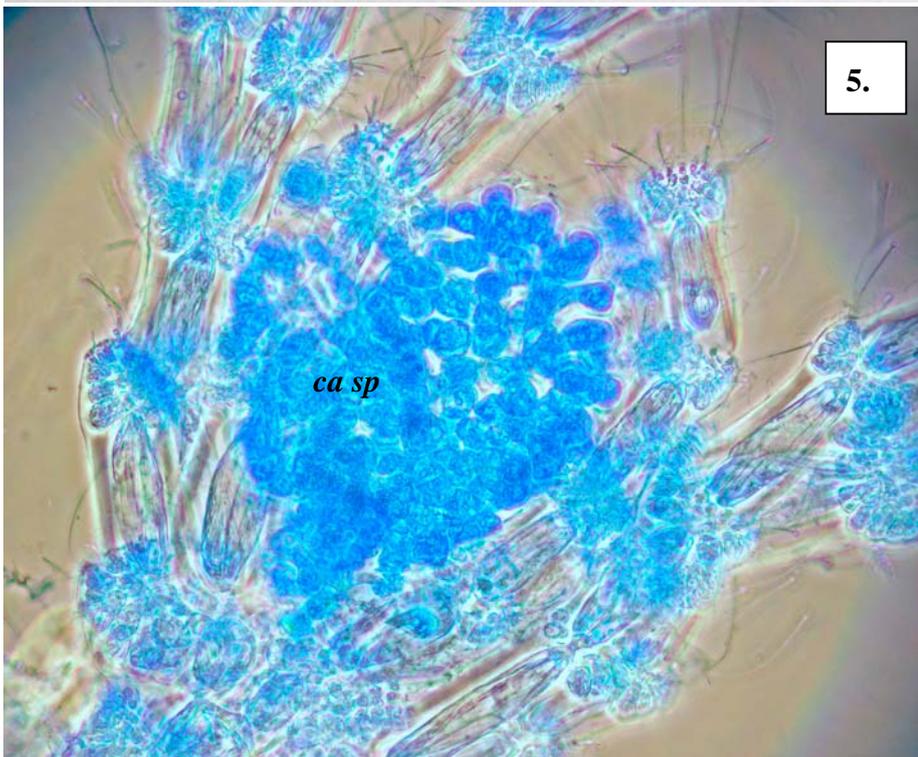
Part IIIC, pages 405-408

Details of Anatomy



Ceramium cupulatum (A15430 slide 4047) stained blue and viewed microscopically to show:

1. upright thread near its tip, with axial cells (*ax c*) and rings of corticating cells (*co c*) branching 2-3 times **upwards only**, ending in hairs (*ha*)
2. prostrate thread (*p ax*) with attachment rhizoid (*rh*) ending in **many-celled** attachment disc (hapteron, *ha*)
3. tetrasporangia (*t sp*) on one side of the axis, wrapped in an **involucre** (*inv*) formed by extended division of the corticating branches



4. *Ceramium cupulatum* Womersley A15430 (arrowed) on *Corallina* sp from D'Estrees Bay Kangaroo I. sublittoral fringe pools
- 5, 6. specimens (A15430 slide 4047) stained blue and viewed microscopically
5. mass of carposporangia (*ca sp*) in the fork between several branches
6. cupulate tetrasporangium (*t sp*)