

**Techniques needed and plant shape**



MICRO  
PLANT



filament



spiral

**Classification**

Phylum: Rhodophyta; Order: Ceramiales;  
Family: Ceramiaceae; Tribe: Callithamnieae

**\*Descriptive name**

tiny tufts

**Features**



plants red-brown, to 20mm tall, main branches forked, smaller side branches arranged in a spiral

**Special requirements**



view microscopically to find:

- main branches (axes) **forked** (dichotomous), naked (**ecorticate**) of threads (filaments) of box-shaped cells, shorter forked branches arise in a **spiral** pattern from most axial cells
- **stalkless** tetrasporangia, divided tetrahedrally or in 2 rows (decussate)
- products of fertilisation, **pairs** of lobed masses of carposporangia develop from a single female system on the cells of main branches

**Occurrences**

known only from Pt Broughton, S Australia

**Usual Habitat**

growing (epiphytic) on *Caulocystis uvifera*

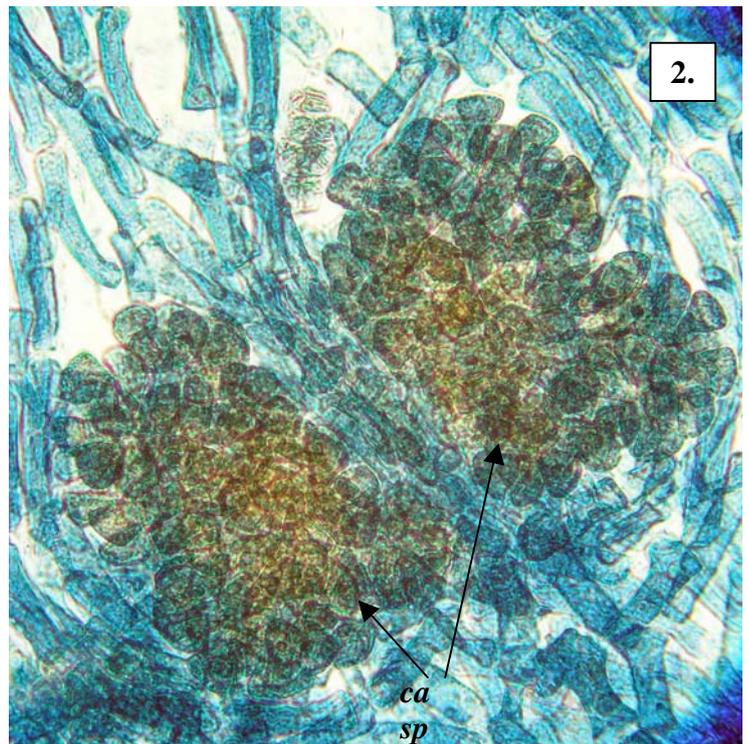
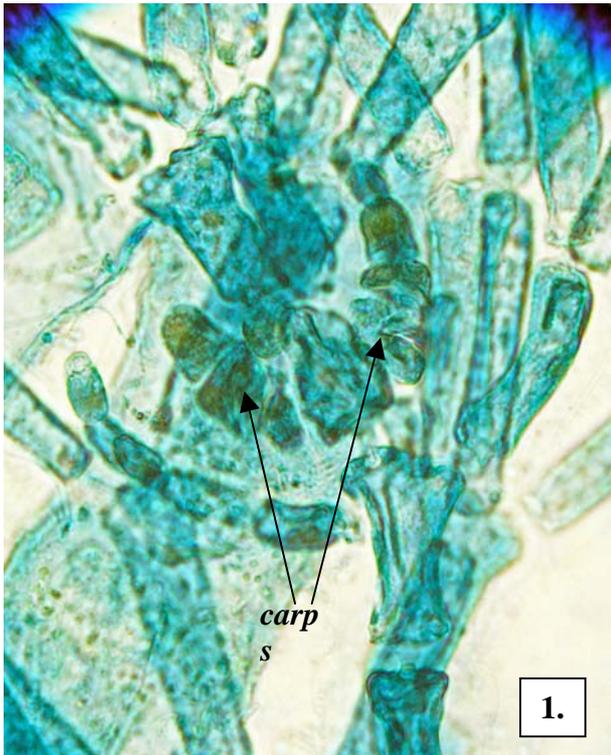
**Similar Species**

*Callithamnion byssoides* but that species has longer, narrower main-branch cells, and longer side branches

**Description in the Benthic Flora**

Part IIIC, pages 250-251

**Details of Anatomy**

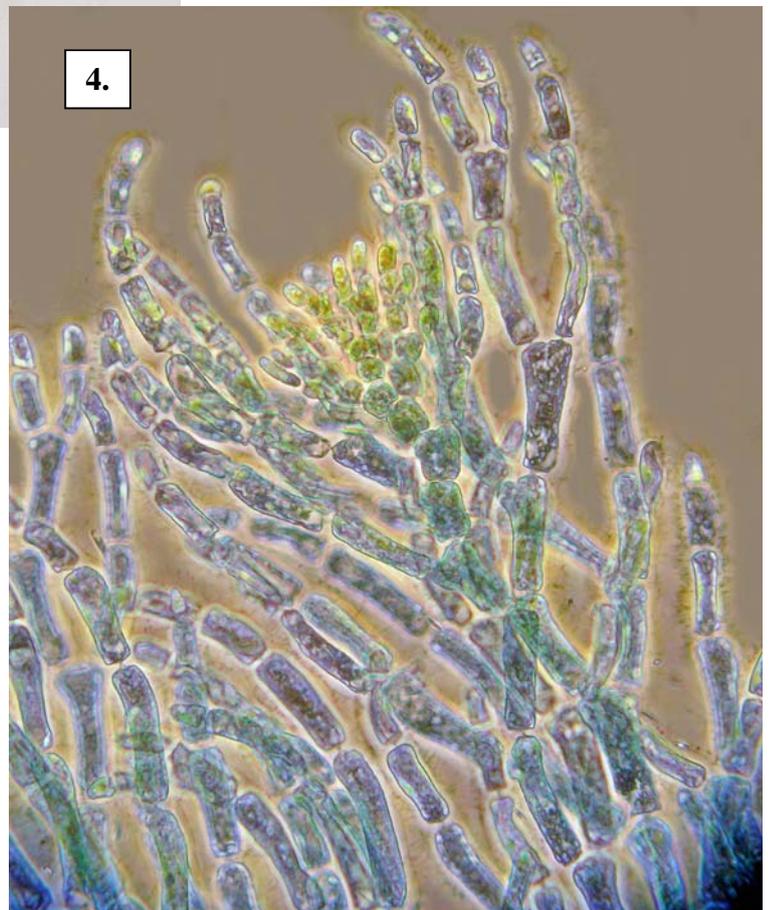


*Callithamnion propebyssoides* A28990 slide 15787 stained blue and viewed microscopically

1. branches of cells developed after fertilisation (carposporophyte, *carps*) from a single female structure
2. mature carposporophyte of 2 lobes of carposporangia (*ca sp*) straddling the main branch cell, and devoid of wrappings (involucre)



3.



4.

3. *Callithamnion propebyssoides* Womersley A31803 (arrowed) on a drift lant of *Caulocystis uvifera*, from Fisherman Bay, Pt Broughton S. Australia
4. a specimen (A28990 slide 15787), stained blue and viewed microscopically to show the forked branching pattern on all sides (radial) near the tips of main branches or axes