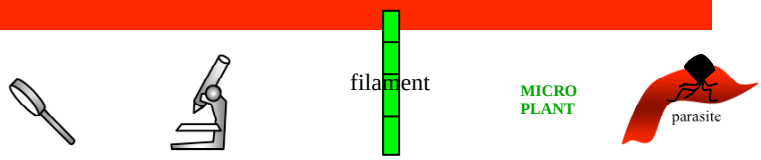
Heterothamnion platythalieae
Athanasiadis

A SPECIES WITH FEW RECORDS

45.800.36

Techniques needed and plant shape



Classification Phylum: Rhodophyta; Order: Ceramiales; Family: Ceramiaceae; Tribe: Heterothamnieae

***Descriptive name** red platythalia fuzz

Features red tufts about 4mm tall form patches on the brown alga, *Platythalia angustifolia*

Special requirements view microscopically: to find

- ***several*** upright main branches (axes) in each plant attached by ***rhizoids*** at the base (probably penetrating the host fertile openings — conceptacles), 1-2 short side branches (whorl branchlets) at ***right angles*** per axial cell, one usually ***larger*** and more branched than the other
- carposporophytes (the products of fertilisation) with bunches of carposporangia at the ***ends*** of branches, surrounded by ***4*** whorl branchlets
- ***stalkless***, tetrahedrally divided tetraspores on lower cells of whorl branchlets in sporangiate plants

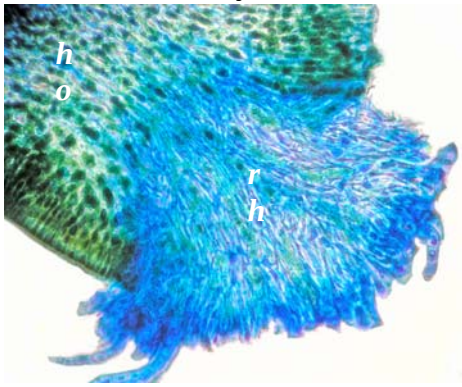
Occurrences known only from Sarge Bay, Cape Leeuwin, W. Australia

Usual Habitat not known (drift plant)

Similar Species other *Heterothamnion* spp, but they have 4 whorl branchlets per axial cell, and parasitise *Cystophora* spp

Description in the Benthic Flora Part IIIC, pages 162, 165, 166

Details of Anatomy



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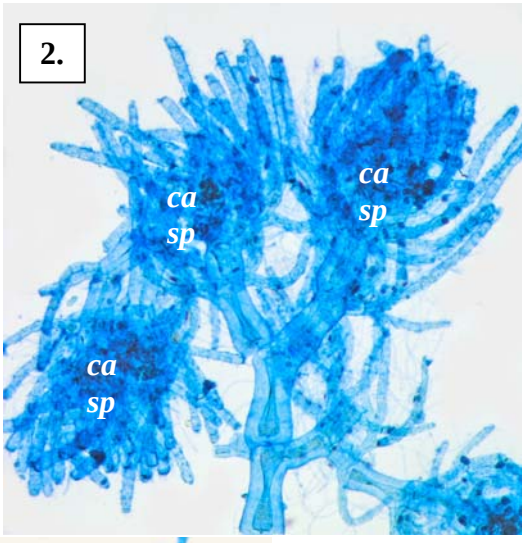
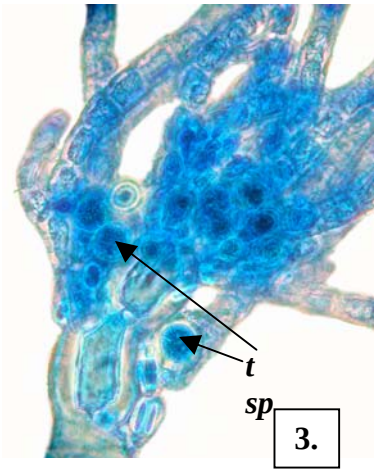
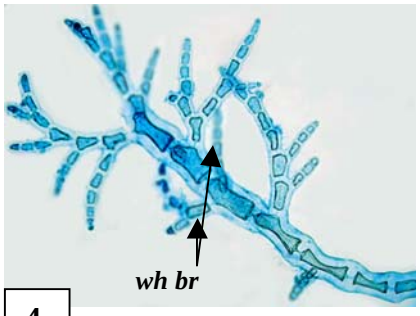
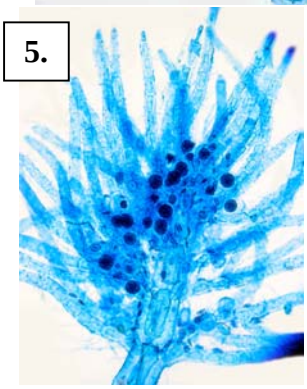






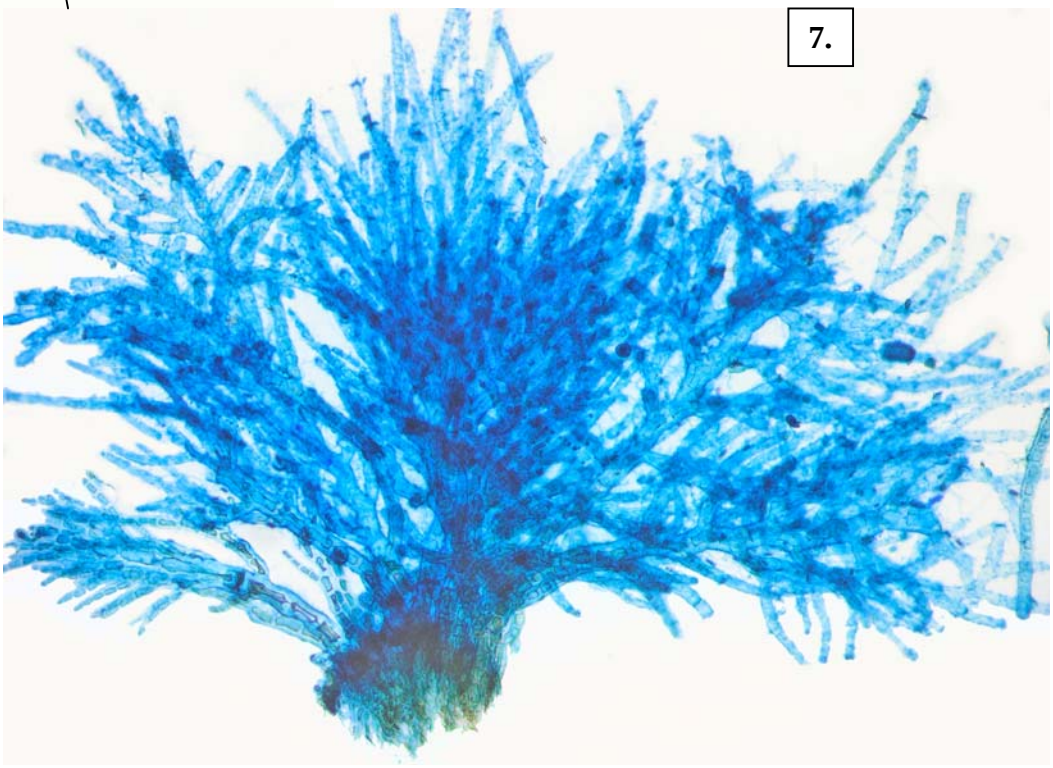


Heterothamnion platythaliae A34205 stained blue and viewed microscopically

1. cross section through the host (*ho*) to show the mass of penetrating rhizoids (*rh*) (slide 16611)
2. carposporophytes (*ca sp*) (products of fertilisation), at the ends of branches (slide 16612)
3. tetrasporangia (*t* sp) on basal whorl branchlet cells (slide 16613)
4. odd-sized whorl branchlets (*wh br*) at right angles from each main branch cell (slide 16612)
5. tetrasporangial branchlets (slide 16612)

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

6.



7.

6. *Heterothamnion platythaliae* Athanasiadis A34205 (arrowed) on *Platythalia*
7. whole, detached plant stained blue and viewed microscopically (A34205 slide 16612)