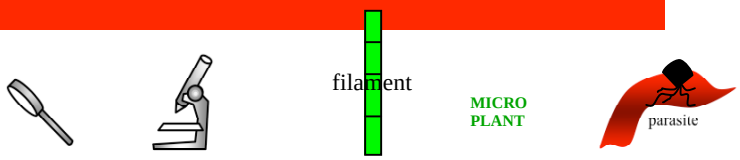
Heterothamnion sessile

E M Wollaston

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 cystophora fuzz

Features red tufts about 4mm tall form patches on the brown alga, *Cystophora platylobium*

Special requirements view microscopically to find

- ***several*** upright main branches (axes) in each plant, attached by ***rhizoids*** to the host, rings of short, branched side branches (whorl branchlets) ***1-3*** per axial cell in lower parts, ***4*** in upper parts of plants, very small, bright ***gland*** cells lying ***along*** lower whorl branchlet cells
- carposporophytes (the products of fertilisation) with 1-2 bunches of carposporangia on a ***short*** fusion cell in upper main branches (axes)
- tiny male spermatangial branches on the ***upper*** (adaxial) sides of upper whorl branchlets
- ***stalkless*** tetrahedrally divided tetrasporangia on lower cells of whorl branchlets

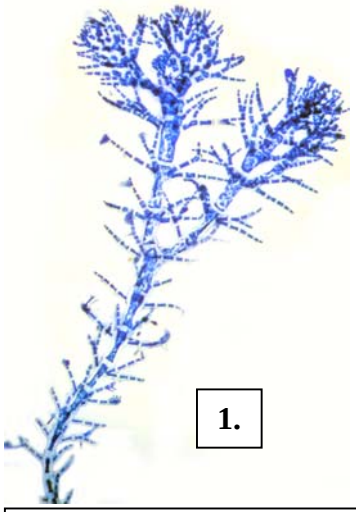
Occurrences only known from Victor Harbor and Seal Bay, Kangaroo I., S Australia

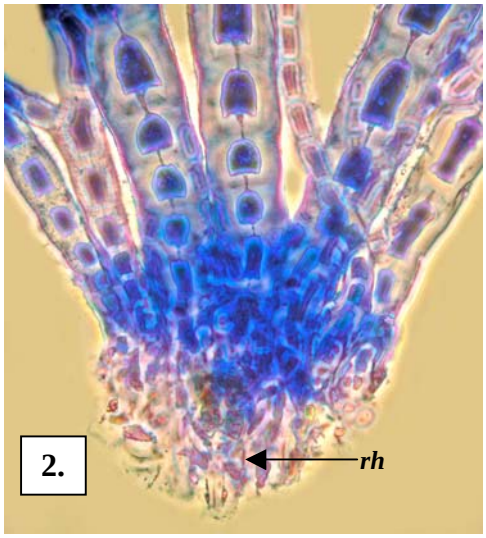
Usual Habitat not known (drift plants)

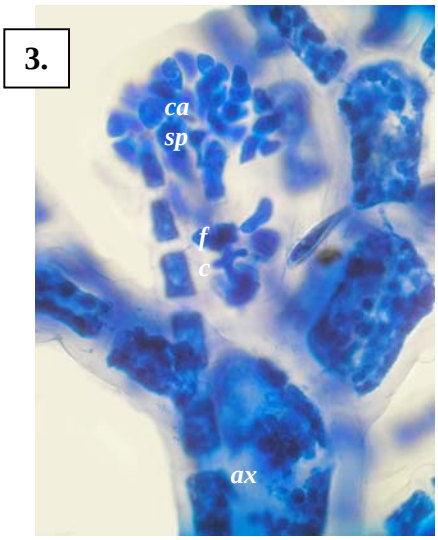
Similar Species *Heterothamnion muelleri* also on *Cystophora platylobium*, but in that species the whorl branchlets are ***unbranched*** and curve upwards and the tetrasporangia are stalked

Description in the Benthic Flora Part IIIC, pages 160-162

Details of Anatomy

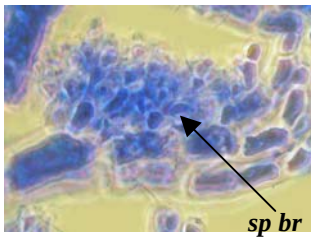






Heterothamnion sessile A29304 stained blue and viewed microscopically:

1. showing the rings of 4 whorl branchlets (slide 4105)
2. basal rhizoids (*rh*)
3. carposporophyte (the product of fertilisation) (*ca sp*) on an axial cell *(ax c)* with fusion cell (*f c*) and carposporangia (*ca sp*) (slide 1346)
4. detail of a whorl branchlet with spermatangial branches (*sp br*) (slide 4104)
5. gland cells (*gl c*) and young (undivided) , stalkless tetrasporangia (*t* sp) on whorl branchlets (A29304 slide 16599)



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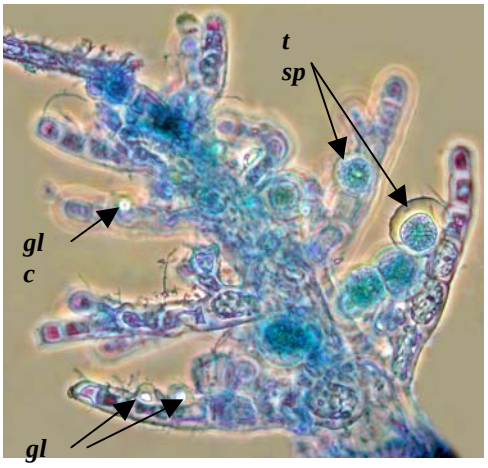

5.

* 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 sessile* E M Wollaston A29304 (arrowed) on *Cystophora platylobium*
7. specimen stained blue and viewed microscopically showing a whole male plant with remnant host plant tissue at the base (slide 4104)

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