Anotrichium subtile Baldock

A SPECIES WITH FEW RECORDS

45.800.68

Techniques needed and shape

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

***Descriptive name** dark red fine tufts

Features plants dark red, 20-90mm tall, of extremely ***fine***, forked threads

Occurrences only known from the Adelaide metropolitan beaches, S. Australia, Port Phillip, Victoria and Botany Bay, NSW

Usual Habitat attached to port structures such as pylons; one specimen on seagrass

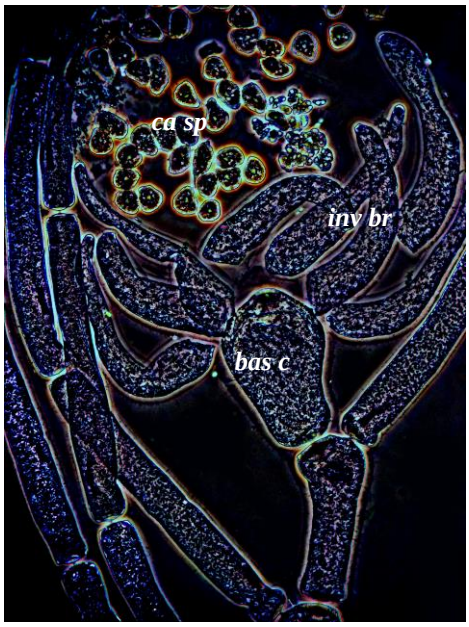
Special requirements view plants microscopically to find

- thin filaments of ***naked*** cells only ***18-30 µm*** across in the middle of the plant
- in female plants: ***basket-shaped*** mature female structures (cystocarps), a ring of 12-13, incurved sterile cells (*involucral branches*) at the top of an ***inflated*** basal cell; central masses of spores (carposporangia)
- in male plants: ***stalked heads*** of spermatiangia, single along filaments
- in spore plants: single tetrasporangia on short stalk cells (***pedicels***)single or paired in uppermost branches

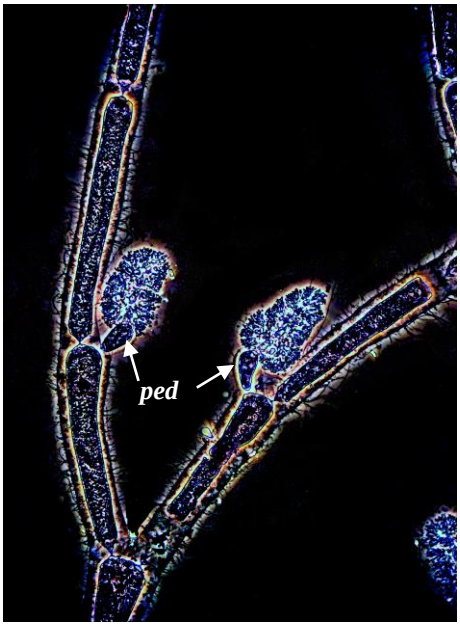
Similar Species *Griffithsia* (=*Anotrichium*) *multiramosum* from Baja California but this species has larger cells

Description in the Benthic Flora Part IIIC, pages 342, 345-347

Details of Anatomy



1.



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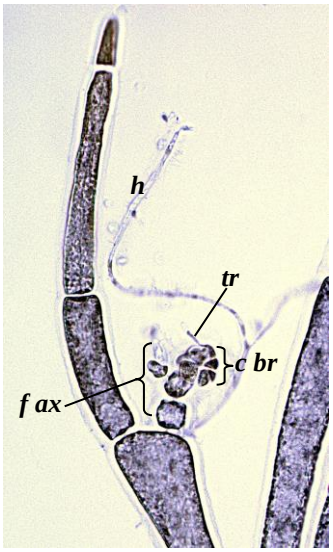


Different magnifications of *Anotrichium subtile*, (#1-#3 under dark-field microscopy)

1. single mature female structure (cystocarp): swollen basal cell (***bas c***), ring of incurved involucral branches (***inv br***), carposporangia (***ca sp***) (displaced somewhat in the preparation of the slide) (slide 1540)
2. male plant: single spermatangial heads, short basal stalk cells (pedicels, ***ped***) (slide 1540)
3. spore plants: single and paired tetrasporangia on short pedicels, one mature sporangium divided tetrahedrally (***arrowed***) (slide 5830)
4. young female structure (procarp): branched hair (***h***), fertile axis (***f ax***), fertile branch (carpogonial branch, ***c br***), trichogyne (***tr***) (slide 1540)

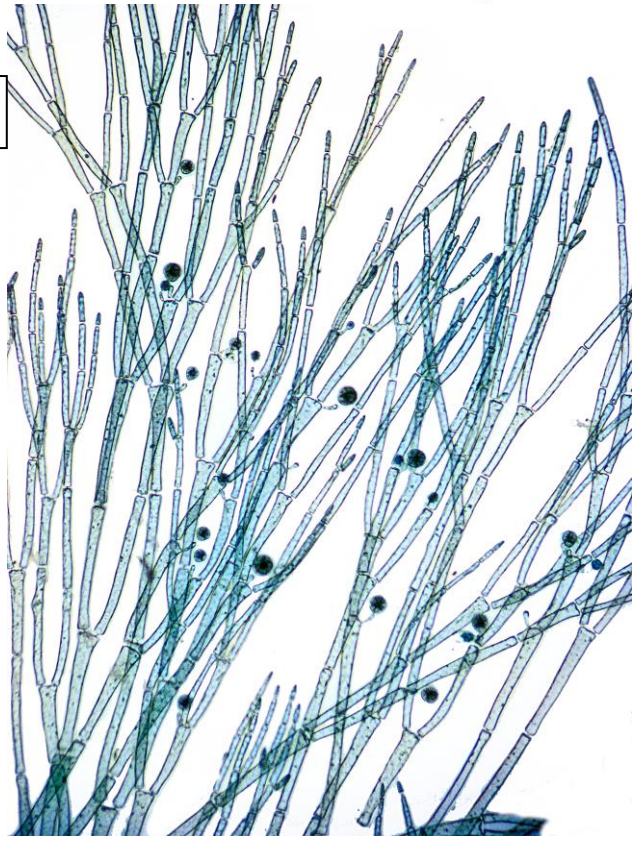
* Descriptive names are inventions to aid identification, and are not commonly used

"Algae revealed", R N Baldock, October 2005, additions November 2007; revised July 2014

5.

6.

7.



Anotrichium subtile Baldock
5, 6. from Semaphore Beach, S. Australia A32281, showing variation in colour
7. stained blue and viewed microscopically (slide: 5830): extremely fine forked threads, minute, stalked tetrasporangia

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