**Anotrichium subtile**

**Baldock**

**Techniques needed and shape**

**Classification**

Phylum: Rhodophyta; Order: Ceramiales; Family: Ceramiaceae

*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**

- thin filaments of *naked* cells only 18-30µm 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 spermangia, 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**

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 spermangial 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

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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