

*Anotrichium crinitum*  
(Kützing) Baldock

45.800.68

Techniques needed and shape



MACRO  
PLANT



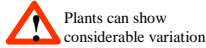
Classification

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

\*Descriptive name

red threads with condensed branch ends

Features



Plants can show considerable variation

plants light to dark red, 50-200mm tall, of threads of cells just visible to the unaided eye, 3.5-5.0 times as long as broad, coarse-textured; fertile plants with forked threads, branch ends **condensed** and **outspreading** (corymbose); sterile plants **coarser**, branches parallel, often twisted into **thick wads** 10mm thick at the base

Occurrences

from the West Coast, S Australia, to Tasmania and S NSW; S Islands of New Zealand

Usual Habitat

in lower intertidal pools to 17m deep, attached by rhizoids to rock

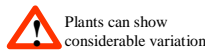
Special requirements

view microscopically to find:



- branches coming **rapidly** to a point; apical cells **short, conical**; downward growing rhizoids, usually near the plant base, interlacing main branches to form ropey strands or thick wads
- in sporangial plants: tetrasporangia on **very short** stalks (**pedicels**), **single** on **outer sides** of **condensed** branch tips that spread **outwards**
- in female plants: **basket-shaped** mature female structures (cystocarps) of single swollen basal cells bearing rings (**involucre**s) of 4-6 incurved cells, near the ends of branches; adjacent, condensed branch ends may **overtop** them
- in male plants **head-shaped masses** of minute spermatangia on club-shaped stalks (**pedicels**) near condensed branch ends

Similar Species

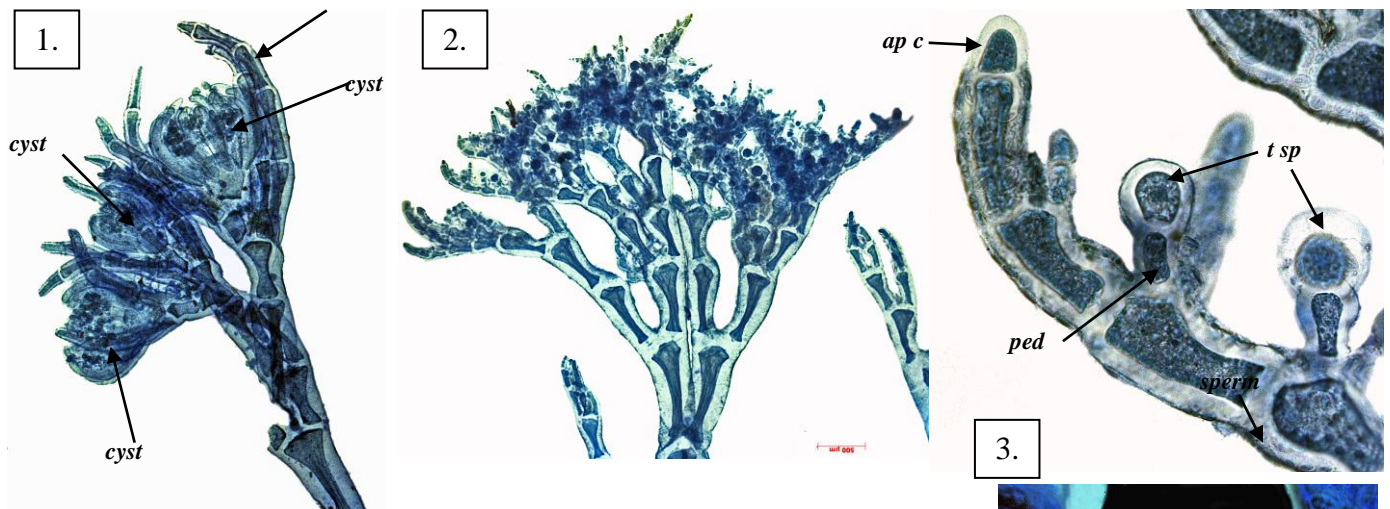


Plants can show considerable variation

*A. crinitum* is easily recognised when fertile. Coarse, sterile plants resemble *Griffithsia tege*s but this has wider cells. Delicate specimens resemble *Anotrichium elongatum*, but this has elongate apical cells and threads gradually coming to a point

Description in the Benthic Flora Part IIIC, pages 349-352

Details of Anatomy



*Anotrichium crinitum* stained blue and viewed microscopically:

1. tip of a female plant (A24403 slide 3150), showing basket-shaped cystocarps (**cyst**) and adjacent, overtopping, condensed branches (arrowed)
2. tips of a sporangial plant (A24403 slide 3151) showing the **condensed, outspread** branches bearing tetrasporangia on the upper surfaces
3. detail of the tip of a condensed branch (A24403 slide 3151) showing a **conical** apical cell (**ap c**) and **single** young tetrasporangia (**t sp**) on short stalks (pedicel, **ped**) on the upper surface
4. detail of a spermatangial head of a male plant (A24403 slide 3152) showing a large stalk (pedicel, **ped**), string of central (axial) cells (**ax c**) and clusters of spermatangia (**sperm**)



*Anotrichium crinitum* (Kützing) Baldock,

5. from 15m deep, 1300m off Cape Northumberland, SE S Australia (A55219): condensed outspread branches just visible at the tips of threads (some arrowed); twisted threads at the base
6. specimen stained blue and viewed microscopically (slide 3151): detail of the outstretched, condensed branches at tips that bear tetrasporangia (similar to those indicated by the arrow)