Techniques needed and shape

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

*Descriptive name
fine dark red tufts

Features
1. plants dark red, 30-70mm tall, consist of extremely fine, forked threads
2. found in sheltered bays

Occurrences
Adelaide metropolitan beaches and Victor Harbour S. Australia, and Port Phillip Bay, Victoria.

Special requirements
View plants microscopically to find:
1. thin, forked filaments of long, naked cells only 200-250μm across in the middle of the plant
2. female plants have basket-shaped reproductive parts. A condensed branch system of curved, inflated sterile cells (involucral branches) like upturned fingers on top of a vase-shaped cell surround a large, amoeboid-like (fusion) cell that produces club-shaped carposporangia
3. male plants also have basket-shaped reproductive parts. Several stalkless, cylindrical masses or heads of spermatia are surrounded by involucral branches of a condensed branch system
4. spore plants have stalkless tetrasporangia with inflated involucral branches of a condensed branch system similar to male structures

Usual Habitat
on solid substrates? such as jetty piles, in relatively sheltered bays

Similar Species
superficially Bornetia tenuis resembles small Anotrichium species (in the Tribe Griffithsieae) but the distinctive basket-shaped male and sporangial structures separate it into a separate Tribe.

Description in the Benthic Flora
Part IIIC, pages 316, 317-319

Details of Anatomy

Different magnifications of Bornetia tenuis, (A28632), stained blue and viewed microscopically.

1. basket-shaped female structures and extruded carposporangia due to squashing in the preparation of the slide can be seen. The involucral branches (inv br) are prominent, but a central amoeboid-like fusion cell (fc) is only just visible (slide 3171)
2. a basket-shaped male structure with involucral branches (inv br) and stalkless cylindrical spermatangial masses or heads (sperm h) (slide 3171)
3. basket-shaped tetrasporangial clusters with involucral branches (inv br) and tetrasporangia (t sp) (slide 3171)

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

“Algae Revealed” R N Baldock, S Australian State Herbarium, December 2007
4. *Bornetia tenuis*  
Baldock & Womersley,  
A28632, drift from Grange Beach, S. Australia

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“Algae Revealed” R N Baldock, S Australian State Herbarium, December 2007