Techniques needed, and shape

Classification
* Descriptive name
Phylum: Chlorophyta; Order: Cladophorales; Family: Cladophoraceae

Features
Plants occur as numerous fine, single, dark green unbranched threads attached to rock or seagrass at their bases.

Special requirements
View the threads microscopically to find:
1. threads increase in width upwards but reach only 250-600μm wide
2. threads are attached by an elongate cell shorter than 1mm
3. the length to breadth (L/B) of cells in upper thread parts = 0.5-1.5

Occurrences
Cosmopolitan; in southern Australia, from Cape Leeuwin, W Australia to Tasmania

Usual Habitat
Usually growing in the lower parts of the intertidal or shallow in moderately rough water, often where sand accumulates; occasionally on seagrass

Similar Species
Other Chaetomorpha spp with fine, hair-like threads, for example, Ch. linum.
Ch. aerea is attached, not floating, and the basal cell is less than 1mm long.

Description in the Benthic Flora
Part I, pages 172-175

Details of Anatomy

Chaetomorpha aerea (A52987 slide 207132); a preserved specimen partly stained blue
1. a single elongate basal cell (bas c.) less than 1mm long, attached to a piece of seagrass blade by a lobed base (l bas)
2. differences in cell sizes along threads (lower magnification to #1)
3. Chaetomorpha aerea (Dillwyn) Kützing, (A19034), from Port McDonnell, S Australia in lower intertidal rock pools

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

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