Techniques needed and plant shape

Classification
Phylum: Chlorophyta; Order: Caulerpales;
Family: Udoteaceae

*Descriptive name
fibrous felt plant; § green seafan

Features
plants dark green to brown-green, 100-250mm tall, often with a matted base from which 1-8 upright, flat, coarsely matted blades arise

Variations
blades often have concentric zones across them

Special requirements
1. tease out threads from the blade and view them microscopically. There are no cross walls (the plant is coenocytic) and no cross connections between threads
2. threads are relatively coarse (35-55 μm across), often with wavy edges
3. threads are constricted where they fork (at the dichotomies)

Occurrences
SW W. Australia to Aldinga, S. Australia

Usual Habitat
growing in deep water (14-27m) or in murky, shallow water, usually in sand

Similar Species
Rhipiliopsis species, but these are smaller, and their threads have side connections (although these are sometimes difficult to see)

Description in the Benthic Flora
Part I, pages 249, 251-253

Details of Anatomy

Threads of Avrainvillea clavatiramea (A52785) teased out from a blade and viewed microscopically
1. 2. stained with aniline blue at different magnifications showing their coarse, matted nature, forked branching, slightly wavy edges and pinching at the forks (dichotomies)
3. unstained, showing undivided (coenocytic) threads and plastids

* Descriptive names are inventions to aid identification, and are not commonly used
§ name used in Edgar, G. Australian Marine Life, 2nd Ed. (2008)
“Algae Revealed” R N Baldock, S Australian State Herbarium, June 2005
Avrainvillea clavatiramea Gepp & Gepp (A52785) from Aldinga, S. Australia

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