

MACRO PLANT

Techniques needed and plant shape

Classification

Division: Phaeophyta; Family: Dictyotaceae; Tribe: Zonarieae
felted fan stalks; §fanweed

*Descriptive name

Features

- 1. plants dark-brown 100-200mm long, *fan-shaped* when young
- 2. mature plants much branched with *felted* (stupose) main parts (axes) and flat-blades 2-5mm wide, *rounded* at their tips

Variations

short spines may occur on the felted axes

Special requirements



- 1. view the tips microscopically to see the line of cells at the blade edge (meristem) continuing the growth of the blades
- 2. view the surface microscopically to see the *pairing* of surface cells
- 3. slice across a blade to see the several rows of *equal-sized* cells in the inner layer

Occurrences

from central W Australia to Victoria, Tasmania and New Zealand

Usual Habitat

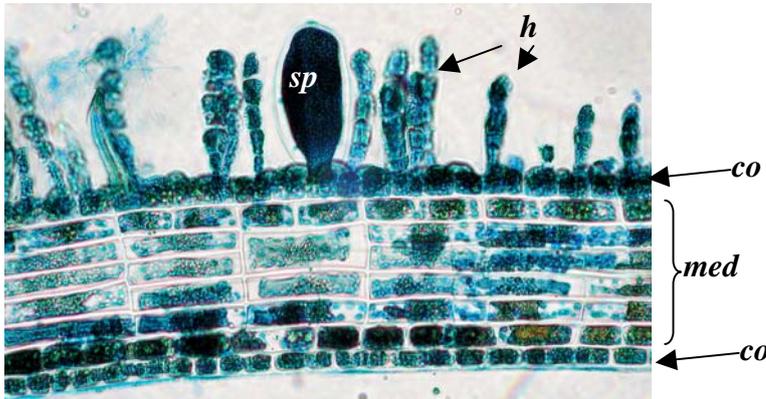
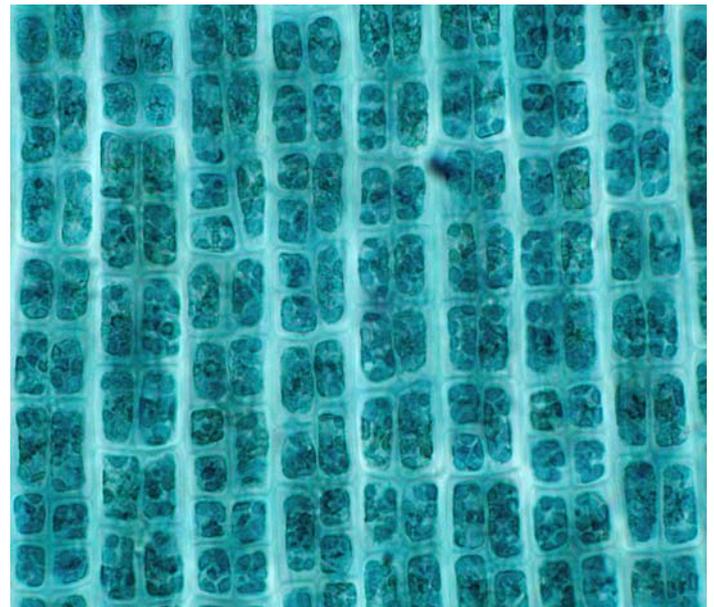
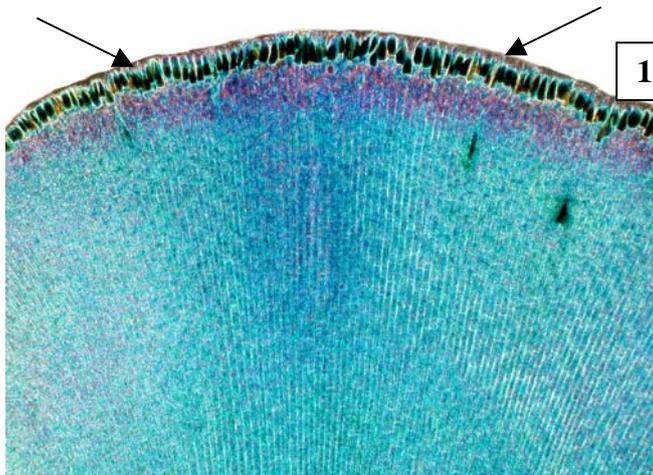
on rock, probably a deep water species

Similar Species

Homeostrichus sinclairii has similar felted axes, but blades are narrower and surface cells are unpaired

Description in the Benthic Flora Part II , pages 252-253

Details of Anatomy



Specimens of *Zonaria turneriana* stained blue and viewed microscopically

- 1. plant tip with the row of dark cells continuing the growth of the blade (arrowed) and regular columns of surface cells (slide 9903)
- 2. cross section with equal-sized internal cells (medulla, *med*), surface cells (cortex, *co*) in *pairs*, sporangium (*sp*) and hairs (*h*) (slide 990)
- 3. surface cells showing their regular arrangement in packets of 2 and 4 cells (slide 9903)

4.



Zonaria ^{turneriana}
subax

4, 5. two magnifications of *Zonaria turneriana* J Agardh (A6784b) cast up at Middle River, Kangaroo I., S. Australia

5.



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, March 2003