



MACRO
PLANT



Techniques needed and plant shape

Classification

Phylum: Phaeophyta; Family: Dictyotaceae; Tribe: Zonarieae

***Descriptive name**

delicate chisel-tips

Features

1. plants dark brown, paler at the base, 30-80mm tall, flat-branched
2. branches narrow, 2-4mm wide, ***forked*** (dichotomous), flat or curled, with ***chisel*** or ***spatula-shaped*** tips
3. a ***dark*** line of dividing cells (meristems) appears as a fringe to the blade



Variations

plant bases may have a felty covering of light-coloured ***rhizoids***

Special requirements

1. view the dark line of dividing cells at the tip edge of blades
2. sporangial patches (sori) are ***covered*** with a transparent sheet (indusium)
3. cut a slice across a mature blade to view the 2 cell layers



Occurrences

from W Australia to Bass Strait

Usual Habitat

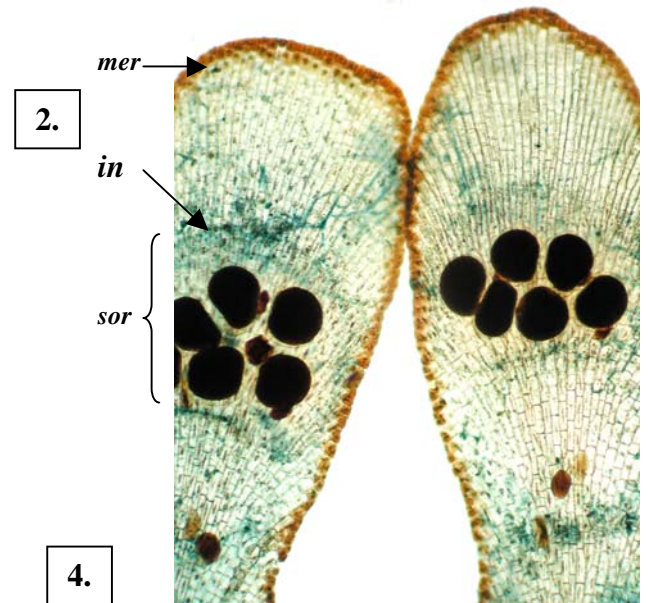
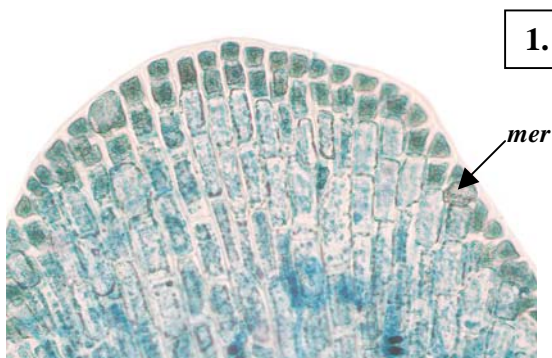
on rock, 2-28m deep

Similar Species

Chlanidophora species, but the spores are scattered, not in patches in that genus

Description in the Benthic Flora Part II, pages 232-235

Details of Anatomy



Microscope views of *Distromium multifidum*

1. tip of a blade stained blue, with the meristem (*mer*) at the edge and rows of cells on the blade surface (slide 9820)
2. two blade tips, partly stained, showing brown coloured meristems, patches (sori, *sor*) of spores, with a faint outline of their transparent cover (the indusium, *in*). (slide 9819)
- 3, 4. cross sections (slide 689) through *different* sori (which may occur on the same plant) showing 2 cell layers (*1*, *2*) of the blade and transparent coverings (indusia, *in*)
3. developing sporangia (*sp*). 4. male structures

5.



Distromium multifidum Womersley
from S Australia

- 5. (A26521) a drift plant from
Aldinga S Australia
- 6. (A72060) from Fleurieu
Peninsula



* Descriptive names are inventions to aid identification, and are not commonly used
"Algae Revealed" R N Baldock, S Australian State, July 2003