



MACRO  
PLANT



Techniques needed and plant shape

Classification

Phylum: Phaeophyta; Family: Dictyotaceae; Tribe: Zonarieae

\*Descriptive name

filmy vein-blades

Features

1. plants light brown, 100-300mm long of *filmy* blades, alternately branched, with a thin but *prominent* midrib
2. blades may be denuded at the base, and minutely *toothed* at the edges
3. sporangia are *scattered* over the blade

Variations

blades may be slightly twisted, and wavy

Special requirements



1. view the microscopic packet of dark, dividing cells in a depression at a blade tip
2. slice across a blade to see the blade consists of a single, occasionally 2, rows of cells, except at reproductive organs and central vein which have more cell rows

Occurrences

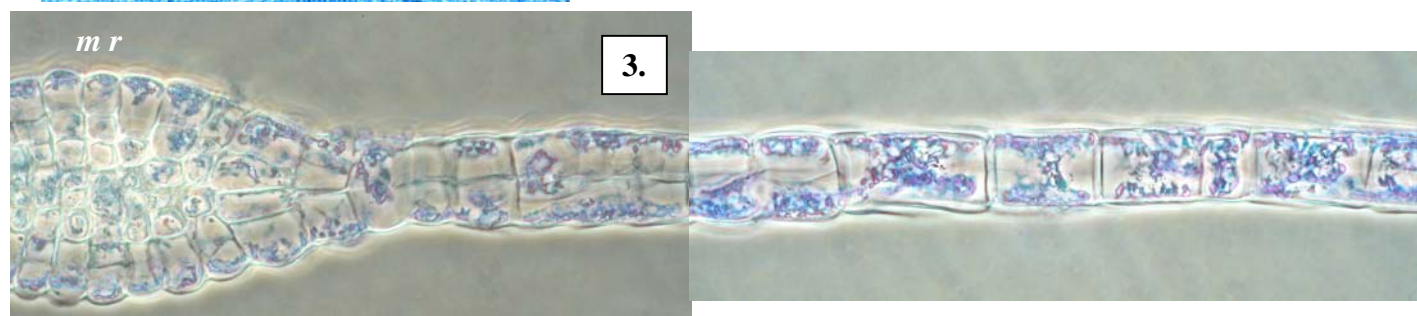
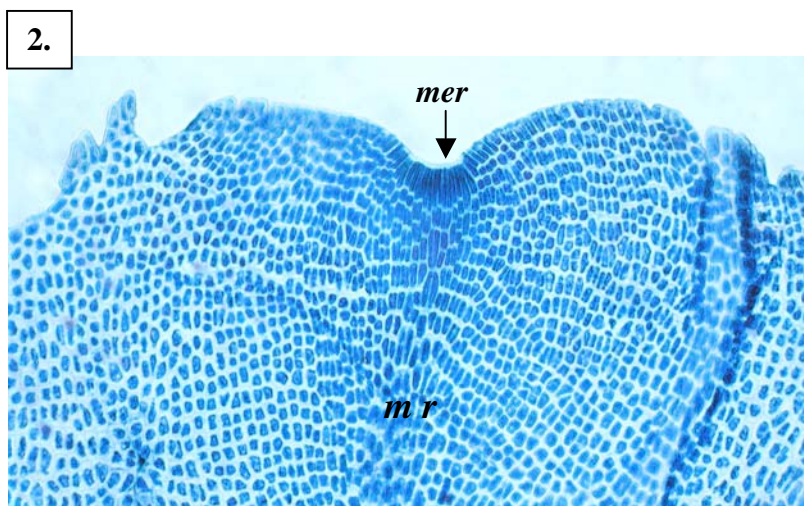
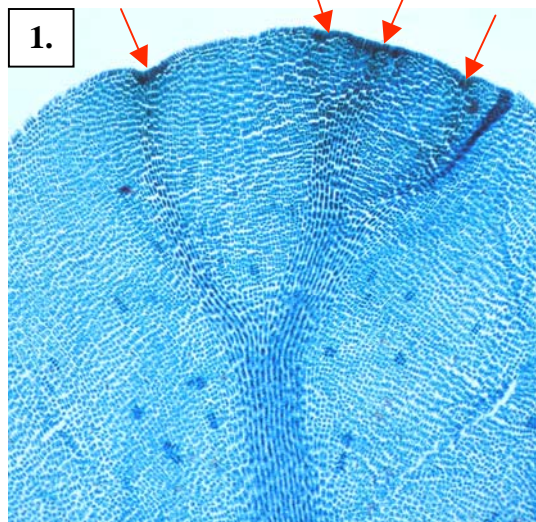
lower parts of S Australian gulf waters and Investigator Strait on seagrass and larger brown algae

Usual Habitat

Similar Species

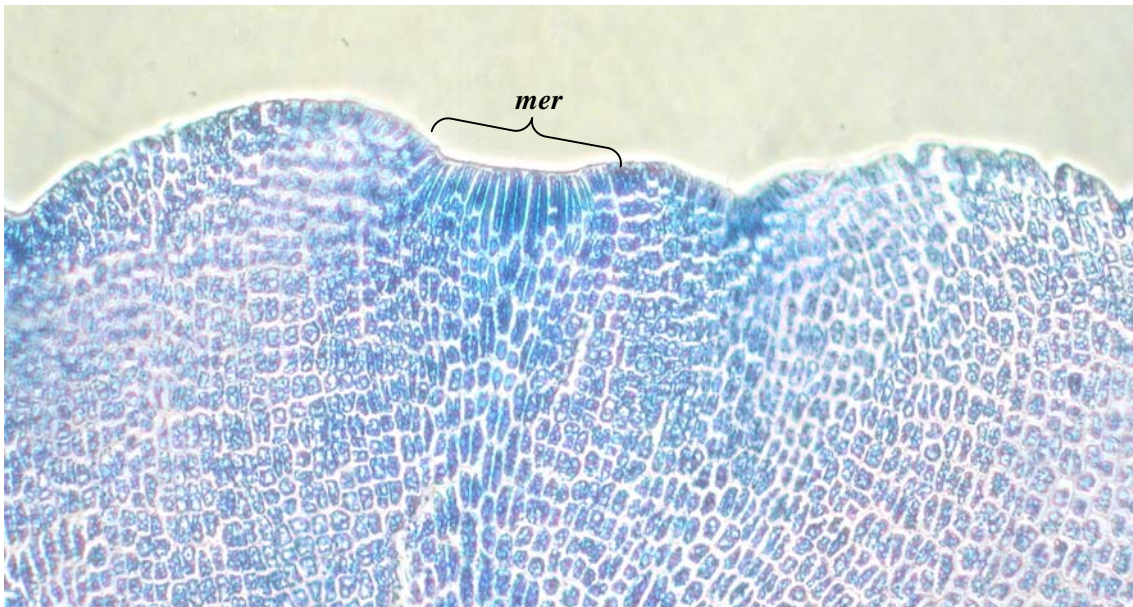
Description in the Benthic Flora Part II, pages 224-226

Details of Anatomy



*Dictyopteris gracilis* stained blue and viewed microscopically:

1. blade tip recently divided, with forked midrib and apical depressions (arrowed) containing packets of dividing cells (meristems) (slide 9688)
2. detail of blade tip and meristem (*me*) in a slight depression, developing midrib (*m r*) and toothed blade margin (slide 9688)
3. composite cross section stained blue, showing up to 8 cell rows near the midrib (*m r*) and 1-2 cell rows in the blade wing (slide 9688)



4. *Dictyopterus gracilis* Womersley (A38375), from 11m deep, Investigator Strait, S. Australia

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