

*Dictyopteris muelleri*  
(Sonder) Reinbold

34.390



MACRO  
PLANT



Techniques needed and plant shape

Classification

Phylum: Phaeophyta; Family: Dictyotaceae; Tribe: Zonarieae

\*Descriptive name

veined blades; §Mueller's forkweed

Features

1. plant dark brown, fairly large, 200-400mm long, of **broad**, flat, forked (dichotomous) blades with **prominent** midrib
  2. hair-tufts and sporangia **scattered** on blades
- lower blades may have irregular branches if heavily grazed

Variations

Special requirements



1. view the small row of 4-8 dark, actively dividing cells (meristems) at a blade tip
2. slice a blade across to view the edge that is 4-7 cells thick and 8-20 cells thick in the mid-rib with a central stack of oblong cells

Occurrences

common from W Australia, around southern Australia to Sydney, NSW  
on hard surfaces, in shallow waters

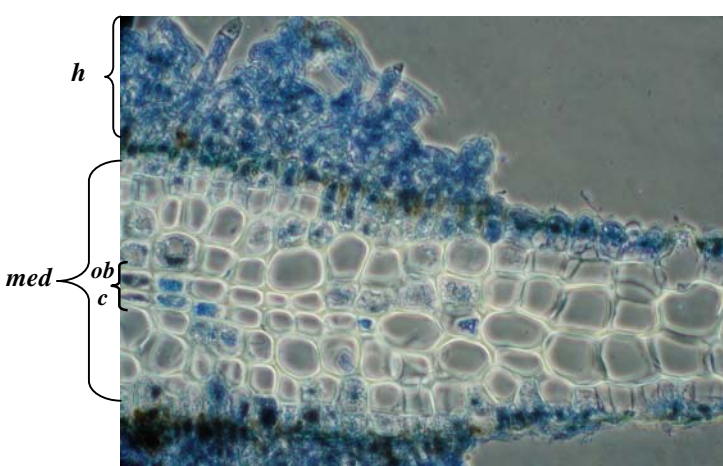
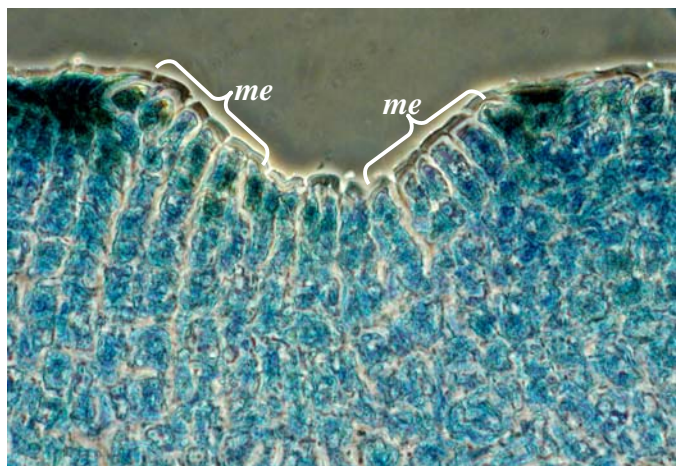
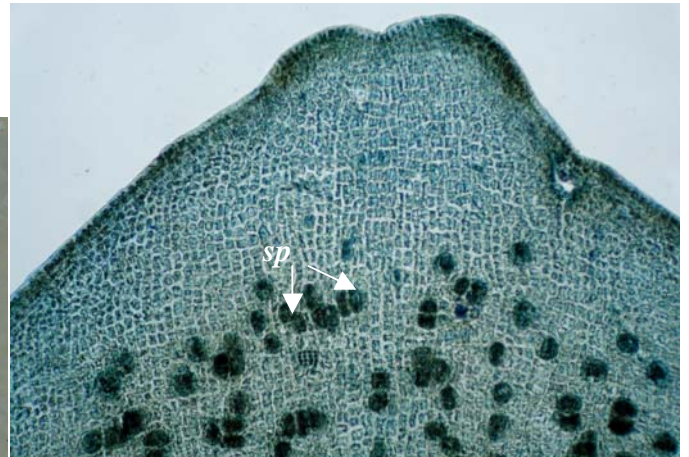
Usual Habitat

Similar Species

1. *Dictyopteris australis*, but this has chevron-like rows of hairs;
2. *Glossophora nigricans* but this has felt-like surface
3. *Dilophus marginatus* but this has no mid-line vein

Description in the Benthic Flora Part II, pages 227-229

Details of Anatomy



*Dictyopteris muelleriana* stained blue and viewed microscopically

1. cross section through a blade tip with dividing cells (meristems, *me*), outer coloured cells (cortex, *co*) and middle layer (medulla, *med*) of 2-4 colourless cells (slide 9830)
2. cross section through a midrib with central stack of oblong cells (*ob c*) and hair tufts (*h*) (slide 9830)
- 3, 4. two magnifications of a blade tip about to fork (divide into two), showing the slight depression in which there are 2 rows of dividing cells (meristems, *me*), and scattered sporangia (*sp*) (slide 9807)

\* 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, July 2003

*Dictyopteris muelleri*  
(Sonder) Schmidt,  
(A13437b), a drift plant  
from Elliston, S Australia



\* 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, July 2003